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- The Effect of the Capital Gains Tax on Asset Prices
Robert F. Gemmill 289
- Assessment Equalization in Washington *James K. Hall* 302
- The Variation of Property Tax Rates Within a Metropolitan Region
Julius Margolis 326
- The Role of Property Tax in Wisconsin Since 1929
Clara Penniman 331
- The Incidence of Public Debt Operations *Earl R. Rolph* 339
- Constructive Taxation: Summary of Results of Section 722 of the
Excess Profits Tax Law of World War II
Goldie Frances Stone 354
- Integration of Sales and Income Taxes at the State Level
Alek A. Rozental 370

(Continued inside cover)

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CONTENTS

(Continued from front cover)

Book Notes	378
NTA Notes	380
1956 Cumulative Table of Contents	

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National Tax Journal

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THE EFFECT OF THE CAPITAL GAINS TAX ON ASSET PRICES

ROBERT F. GEMMILL *

THE charges most frequently made against the capital gains tax are that it leads to increased economic instability and that it adversely affects the allocation of investment funds. Each of these conclusions is based on the proposition that the tax contributes to increased fluctuations in asset prices; and an evaluation of the capital gains tax must therefore begin with an analysis of the effect of the tax on prices. The justification for this paper lies in the fact that previous analyses have tended to overstate the importance of this effect, thereby exaggerating the adverse economic consequences of the tax.

Because an examination of the effect of the tax on investment cannot be made without considering the tax system as a whole, we must limit the present study to the impact of the tax on asset prices.

In order to point out more clearly the consequences of a capital gains tax in general, rather than any specific form of the tax, we shall assume that the investor is not able to reduce or eliminate his tax payment on capital gains by holding an asset until death. The provision of the current tax law which

enables an investor to avoid paying capital gains taxes on assets that are not sold during his lifetime is clearly not an integral part of a capital gains tax, though it may well account for many types of investor behavior which are often attributed to the present tax. Further, in order to simplify the argument we shall assume that capital gains are taxed at a single uniform rate, rather than at one that varies according to the length of time the asset has been held. We must also assume that investors anticipate no change in this rate.

The tax may produce changes in prices of assets in two ways: it may change the terms on which an investor is willing to buy and sell assets—what we shall call the "price effect"—and it may change the volume of funds which the investor has available for purchasing assets—the "capital effect." We shall begin with an examination of the price effect, since this has been the basis for most of the conclusions of previous studies. We first present the existing analysis of the price effect, pointing out its limitations, and then attempt to reformulate it to meet the major objections.

Price Effect

Among the various analyses of the effects of the capital gains tax upon

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prices, that of Professor Somers probably develops the case against the tax in the most systematic manner; and we shall use his analysis as a point of departure, indicating to what extent this type of analysis falls short of providing an adequate account of the effects of the tax.¹

To simplify the exposition, Somers examines the market for a single asset, assuming that the supply schedule for every person holding the asset is positively sloped. It is argued that after the imposition of a tax on capital gains, investors will shift the terms on which they will sell the asset, increasing the reservation price at which any quantity will be sold, by an amount sufficient to cover the tax liability at the sales price. The individual seller attempts in this way to shift the entire burden of the tax to the buyer.² Furthermore, it is held that if any capital loss which occurs may be offset against capital gains from other transactions or against income from other sources, either completely or in part, the seller will be more willing to dispose of his asset where he realizes a loss from the sale than would be true in the absence of the tax. A person in such circumstances will lower his reservation price for each specific quantity of the asset which he is willing to offer for sale, by the per-share amount of the tax saving which he realizes by selling at a loss.

The changed conditions of supply resulting from the tax will produce a

more steeply sloping market supply schedule for the asset. At high prices, where capital gains are likely to predominate, the new market supply schedule will lie above the old; at low prices, where capital losses will probably outweigh gains, the supply schedule after tax will lie below and to the right of the old schedule. The two schedules will cross at the price at which capital gains just balance losses.

Professor Somers states that the tax will also affect the demand for the asset. Since anyone who buys the asset will expect to have to pay a tax on any gains, the tax reduces the investor's incentive to hold the asset, and demand decreases. Somers argues that the upward shift in the supply schedule (caused by the actions of sellers with potential capital gains) is likely to be greater than the downward shift in the demand schedule in the case in which most sellers have capital gains:

The prospect of having to pay a tax on a gain will probably dampen the demand somewhat. The prospective tax taken into account in this case will depend on the prospective capital gain. But there is no single prospective capital gain—rather a broad optimism among buyers that prices will rise. Nor is the prospect of a capital gain the sole factor in demand; the prospect of dividend, interest, or rental income is sometimes more important. Thus the imposition of a capital gains tax will reduce demand to a limited extent. . . . The tax liability of sellers is something real, definite, and calculable by sellers at each possible price at any time. The expected future tax liability of the buyer is, however, something very vague and indefinite and, in any case, is associated only with a very favorable contingency; namely, profit-taking.³

¹ Somers, Harold M., "An Economic Analysis of the Capital Gains Tax," *National Tax Journal*, Vol. I, No. 3, pp. 226-232. See also: Colm, Gerhard and Lehmann, Fritz, "Economic Consequences of Recent American Tax Policy," *Social Research*, Supplement I, 1938; and, von Mering, Otto, *The Shifting and Incidence of Taxation*, Philadelphia, The Blakiston Company, 1942.

² Somers, *Op. cit.*, p. 226.

³ *Ibid.*, p. 227.

The conclusion of the above analysis may now be set forth. At a range of prices at which capital gains predominate there will be a reduction in supply, which may be expected to be greater than the accompanying reduction in demand. Sales of the asset will decline and the price may be expected to be somewhat above the level that would have existed in the absence of the tax. Where capital losses are general, the combination of a decreased demand and an increased supply produces a lower price than would otherwise obtain. Thus, it is argued, a capital gains tax will accentuate both increases and decreases in the prices of assets, and will therefore lead to greater instability of prices in the markets for assets.

Two objections may be raised to this analysis. First, the relative rates of taxation of capital gains and income appear to have substantially more effect on the supply of investment (the demand for assets) than does the absolute rate at which capital gains are taxed.⁴ Second, and more important, this type of static analysis does not explain the basis for the shift in the reservation price of the individual investor. In fact, we shall demonstrate that so long as the investor acts rationally the shift in terms of sale resulting from the capital gains tax will not be made in accordance with the principle advanced by Professor Somers.

An individual's decision to dispose of specific quantities of a given asset at certain prices is dependent, at least implicitly, upon certain assumptions. If he anticipates a significant increase in the price of an asset which he holds, he

is less likely to offer a given quantity of it at a given price than if he held no such expectations. Similarly, if he expects the prices of other assets to rise, while anticipating no change in the prices of the assets that comprise his current holdings, he would be more willing to sell his present assets and buy those which offer the greatest likelihood of gain. The use of a supply schedule, or the concept of a reservation price in analyzing the behavior of an investor, may therefore be regarded as a way of representing a given state of mind associated with a given set of expectations; and we might well expect a shift in reservation prices to accompany each change in an investor's expectations.

If a capital gains tax is to affect the reservation price of an investor, it must produce a change either in the price expectations of this individual or in the actions he will take on the basis of any given set of expectations. To maintain successfully that the imposition of the tax has affected expectations of price movements, we should have to develop a theory of the basis for expectations, a task which is well beyond the scope of this paper.⁵ We shall therefore examine the effects of the capital gains tax on the reservation prices of investors who are presumed not to alter their expectations of price movements by reason of the imposition of the tax.

For the sake of simplicity we shall assume that an individual investor's price expectations for any given time-period may be represented by one figure, which he views as the single most probable value for the period. While

⁴ Butters, J. K., Thompson, L. E. and Bollinger, L. L., *Effects of Taxation, Investment by Individuals*, Boston, Graduate School of Business Administration, Harvard University, 1953, p. 41.

⁵ None of the analyses of the effects of the capital gains tax upon price movements of assets rest upon the assumption that the tax changes the expectations of any individual with respect to the future course of prices.

this approach may sacrifice some realism in description, the line of argument and the conclusions are essentially unchanged if we employ a pair of "focus outcomes" instead of a single price expectation.⁶

So long as we are interested in the effect of the capital gains tax on the general level of asset prices, we need be concerned only with the impact of the tax on the willingness of an investor to convert current holdings of assets into cash. If the tax prevents an investor from selling one asset and buying another, it has reduced the supply of the first asset and the demand for the second.⁷ These shifts may affect the relative prices of the assets, but they could be expected to offset each other in their effect on the overall level of asset prices.⁸ Alternatively, if we are interested in the effect of the tax on the prices of any particular class of assets, we must examine the way in which the tax changes the terms on which investors are willing to exchange assets in that group for other types of assets, as well as for cash.

In the following analysis, we shall examine the effects of the capital gains tax on the general level of asset prices. However, because the charge leveled against the tax concerns stock prices specifically, we shall indicate later the modifications in the analysis which are required if we wish to examine the effect of the tax on the price level of one type of asset.

⁶ See: Shackle, G. L. S., *Expectations in Economics*, Cambridge (Eng.), Cambridge University Press, 1952.

⁷ See the comments made by Professor Groves in *Capital Gains Taxation*, N. Y., Tax Institute, 1946, pp. 19 and 60.

⁸ If the structure of asset prices should happen to have an effect on the level of such prices, the statement would require qualification.

In order to examine the effects of the tax on the general level of asset prices, it is necessary to distinguish between two types of investors—those who hold assets primarily for capital gains and those who hold them primarily for income.⁹ We first consider the investor whose objective is capital gains.

The Investor Interested in Capital Gains

The capital gains tax can prevent the sale of an asset by an investor only where the investor would have been willing to sell in the absence of the tax. Since an investor interested in capital gains would not dispose of an asset and hold cash unless he expected the price of that asset to decline, we may restrict our analysis to this one sort of expectation.

In the absence of a capital gains tax, the investor will find it advantageous to sell his asset holdings and hold cash whenever he expects a decrease in price, so long as this decrease is sufficiently large to cover the brokerage fees and taxes. Where a capital gains tax exists, such a transaction will always be profitable so long as the investor does not expect the asset to command a price greater than the current one within the foreseeable future, because he will not escape the tax by postponing sale.¹⁰ If the investor anticipates an immediate decline in price, but expects that this decrease will be only temporary and

⁹ The importance of considering the objectives of investors in analyzing the effects of a tax has been emphasized in: Butters, J. K., Thompson, L. E., and Bollinger, L. L., *Op. cit.* The classification of investors employed there is more refined than that used in this analysis.

¹⁰ This is apparently the case considered by the Committee on Taxation of the Twentieth Century Fund in reaching the conclusion that the capital gains tax would not deter the sale of capital assets. See *Facing the Tax Problem*, New York, The Twentieth Century Fund, 1937, p. 489.

that at some future date the price will lie above its current level, he must estimate the extent of the anticipated future price rise in order to determine whether or not to sell. By selling immediately, the investor establishes a new basis for computing capital gains, and at the same time he secures the funds with which to repurchase the asset at the lower price which he expects to obtain in the near future.

Unless the expected decline in price is as great as the total tax liability, the investor will hold after repurchase a smaller quantity of the asset in question. However, the ability of the investor to repurchase the asset at a lower price, and the fact that any future tax liability will be lower than if the investor had not sold and repurchased, will outweigh the advantages of a larger asset holding if the anticipated increase in price is not large. The principle may be illustrated by means of a numerical example.

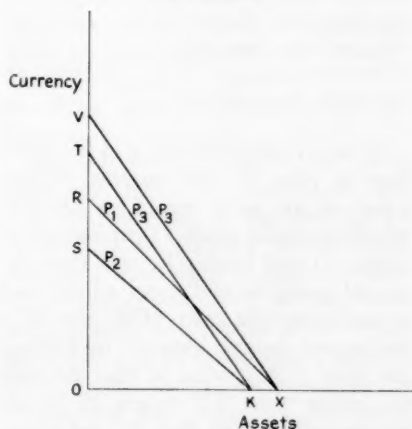
We shall take the case of an investor who owns 100 shares of a stock with a current market price of \$100 per share. If we assume that the investor purchased the stock for \$40 per share, and that all capital gains are taxed at 25 per cent, it will be profitable for the investor to sell his holdings in anticipation of a price decline of 10 per cent so long as he does not expect the long-run price to reach \$270 per share.¹¹ If the investor sells his holdings immediately, he will realize \$85 per share after payment of the capital gains tax; but if his expectation is realized, and the price of the stock falls to \$90, he will be able to repurchase 94.44 shares with the receipts from his previous transaction. We now

compare the amount which the investor could realize after taxes from the sale of this smaller asset holding with that which he could have received if he had retained his original 100 shares.

The analysis may readily be presented geometrically. In Figure 1, the units of any given asset are measured on the abscissa scale and the units of currency on the ordinate. We assume that an investor holds an amount of the asset measured by OX, which he is able to exchange for cash at a rate indicated by

FIGURE 1

GRAPHIC ILLUSTRATION OF ALTERNATIVE RESULTS FROM SALE OR CONTINUED HOLDING OF ASSETS



the slope of price line P_1 . We further assume that he anticipates a decline in the price of the asset, and sells his entire holding for OR units of currency. If we assume, for the sake of simplicity, that the entire market value of the asset constitutes a capital gain, and is subject to a tax of 25 per cent, the total tax payment would be RS, and the amount left to the seller after this transaction would be OS.

¹¹ See technical note, page 300, for an explanation of the equation used in computing this figure.

If the price of the asset falls to P_2 , this investor will be able, with the proceeds from the previous sale, to purchase a number of units of the asset equal to OK. If the price should now rise to P_3 , the market value of his asset holdings will be OT; and the amount which could be realized from sale is OT, less 25 per cent of ST (the tax owed on the increase in capital value).

If a sale which would have been profitable in the absence of a capital gains tax is unprofitable with such a tax, we may conclude that the tax has produced an increase in the investor's reservation price. If the investor expects the price of the asset to fall to P_2 at some time in the near future, and ultimately to rise to P_3 , he should be able to specify a price (which we may

ILLUSTRATION OF ALTERNATIVE RESULTS FROM SALE OR CONTINUED HOLDING OF ASSETS

	INVESTOR SELLS AND REPURCHASES 94.44 SHARES AT \$90 PER SHARE	INVESTOR HOLDS 100 SHARES, PURCHASED AT \$40 PER SHARE
Price \$120		
Market value of holding ...	\$11,333	\$12,000
Tax due (\$7.50 per share)	708	2,000 (\$20 per share)
Capital value after taxes ...	\$10,625	\$10,000
Price \$270		
Market value of holding ...	\$25,500	\$27,000
Tax due (\$45 per share)	4,250	5,750 (\$57.50 per share)
Capital value after taxes ...	\$21,250	\$21,250

If the investor had not sold his holdings at price P_1 , the current market value of his assets would be OV, of which he would retain 75 per cent after taxes. It will readily be seen that the capital gains derived from selling and repurchasing the asset (OR plus ST) will exceed the gain obtained by holding the asset (OV)—that is, that RS will be greater than VT—when P_3 is not substantially higher than P_1 , and where this is the case the investor will gain by selling in anticipation of the price decline, since all capital gains are taxed at the same rate. The greater the expected long-term price, the less the gain to be had from sale and repurchase. Similarly, the greater the expected decrease in price, the smaller will be the reduction in the volume of assets held by the investor, and the more profitable it will be for him to sell and repurchase at the lower price.

call P'), above the current market price, at which he would be willing to dispose of his holdings.¹² The difference between the current market price and P' constitutes the increase in reservation price which may be attributed to the capital gains tax, and for any given price expectations (values of P_2 and P_3) it is dependent upon the rate at which capital gains are taxed and the proportion of the current market value that is subject to tax.

A capital gains tax will cause an investor interested in capital gains to increase his reservation price sufficiently to cover the full liability at the sale price only in the case where the anticipated long-term increase is infinite and where the investor regards the current market price as the minimum to be expected in the short run. If the anticipated long-

¹² While the investor cannot be regarded as "expecting" the new price to be realized, he would be ready to sell his asset at that price.

term increase in price is infinite, the investor loses by any action which reduces his holdings of the asset. If the investor expects to be able to repurchase the asset at some time in the future at the current price, he will hold a reduced volume of assets after repurchase unless he sells at a price higher than the existing one by an amount which represents his tax liability (per share) at the sale price.

As a practical matter, it is apparent that the expected long-term increase in price will never be infinite. In fact, where the investor has discovered assets which give promise of very substantial increases in value over a period of years, we might legitimately assume that, with or without a tax, he would direct his energies toward locating other assets with similar potentialities rather than concentrating on short-term profits from trading.¹³ The investor, therefore, will never have to increase his reservation price by an amount equal to his anticipated tax liability; it will be profitable to sell in a falling market and repurchase later even if there occurs some reduction in the volume of his holding of the asset in question.

Our analysis has indicated the importance of the size of the currently expected price decrease in determining the amount by which the investor's

reservation price will be increased on account of the tax. The smaller the currently expected decrease, the larger must be the increase in reservation price.

Among any group of investors we should expect to find significant differences in expectations and, therefore, significant differences in the amount by which reservation prices are increased as a result of the tax, even if all investors should have the same tax liabilities. Since no investor interested in capital gains would increase his reservation price sufficiently to cover his tax liability at the sale price, the average increase in reservation price would necessarily be less than the average contemplated tax liability, and unless all investors simultaneously had expectations of very small price declines, the average increase in reservation price could be substantially less than this amount.

For the investor interested in capital gains the increase in reservation price will not invariably be less than his tax liability at the existing market price, but for a wide range of expected long-term prices this will be the case. Furthermore, as we have noted, where the investor expects the long-term price to be several times the current one, he might well not engage in short-term trading even in the absence of a tax.

The Investor Interested in Income

If we consider an investor who is interested in the income from his holdings, we must explicitly recognize time in our analysis, and the conclusions of the preceding section must be modified. Such an investor encounters two separate costs in selling in anticipation of a decrease in price. If, after repurchase, he holds a smaller quantity of the asset, his income will be correspondingly reduced.

¹³ We should distinguish at this point between two types of investors interested in capital gains: those who are chiefly interested in gains derived from trading, and those who place their hopes in long-run capital appreciation. The long-term price expectations of the latter group may be substantially greater than those of the former, but the capital gains tax may not reduce sales to any greater extent among those interested in long-term appreciation. Even in the absence of a tax, such investors might sell only in expectation of a major decline in price (one which in size approaches the tax liability of the investor); and in measuring the impact of the tax it is the *change* in conditions of supply which must be determined.

In addition, during the interval between sale and repurchase he must forego income from the asset. This latter loss in income is a cost which must be borne by any investor who disposes of an asset, whether or not a capital gains tax exists. However, since the tax reduces the relative gain that is derived from selling an asset and repurchasing it at a lower price, the loss in income will act as a stronger deterrent to sale where potential capital-gains liabilities exist than where they do not.¹⁴

Where the investor's sole objective is income, an action which reduces his income will be considered unprofitable, and we might expect him to increase his reservation price sufficiently so that the difference between that price and the price at which he expected to be able to repurchase the asset was greater than his expected tax liability at the higher price.¹⁵ Therefore, if he expects only a very slight decrease in price from the current level, he may increase his reservation price by more than his expected tax liability, if the prospective loss in income during the period between sale and repurchase appears significant.

For an investor interested in both capital gains and income, the increase in

reservation price would not need to be so great, since, as we have seen, an increase in reservation price by some amount less than the investor's anticipated tax liability will be sufficient to yield a capital gain, which the investor could balance against the loss in income stemming from either of the sources noted above.

Up to this point our analysis has been concerned with the effect of the capital gains tax on the general level of asset prices, and we have therefore been interested only in changes in the terms on which investors stood ready to increase the liquidity of their asset holdings. If we wish to determine the effect of the tax on the prices of one class of assets, we should know as well how the tax affects the terms on which investors would exchange assets of this class for those of other types. The same analysis may be employed.

The investor compares the expected capital gain or income from each of two different assets. If they are almost the same, the investor's reservation price must be increased by an amount almost sufficient to cover his tax liability; the greater the difference in capital gains or income, the smaller the required increase. The increase need never be greater than enough to cover the tax liability, since the investor does not sacrifice income by holding cash for any appreciable time.

In conclusion, therefore, it appears that the greater the emphasis placed on income by the investor, the greater the impediment to sale provided by the capital gains tax. If an investor considers income as an objective he may increase his reservation price by an amount greater than his expected tax liability, but he will never need to do

¹⁴ In the example given on page 293, the investor's gain would be 11 per cent if there were no capital gains tax.

¹⁵ This statement may need to be qualified, because it does not appear reasonable to look on an investor as so interested in income that he is indifferent to changes in the size of his capital. If the investor expects to dispose of his asset at some time in the future, he will have to pay a capital gains tax at that time. If, by selling in anticipation of a price decrease, he can substitute a small present reduction in capital for a larger one at some time hence, it may be profitable for him to do so. He may not, therefore, require that the difference between his reservation price and the price at which he expects to repurchase be as great as his tax liability.

so except to offset the loss of income which he expects to suffer during the period between sale and repurchase.¹⁶ And even where he expects a substantial interval to elapse between sale and repurchase, so large an increase in reservation price will be required only where he expects an extremely slight price decline. Therefore, at any given time there may be relatively few investors who have increased their reservation prices by more than enough to cover their tax liabilities, and the average increase could be significantly less than this amount.

We shall postpone a final evaluation of the impact of the tax upon the level of asset prices until we have examined the capital effect of the tax. However, we might note at this point that the view of investor behavior which we have adopted here is consistent with that found in liquidity preference theory, while the assumptions made by Professor Somers concerning the individual's reaction to a capital gains tax are not.¹⁷

¹⁶ If the investor has increased his reservation price to cover his full tax liability, his asset holding, and hence his income, will not decline. Furthermore, where the prospects of capital gains are bright, the deterrent effect of the loss in annual income will be slight. A reduction in capital of 10 per cent would mean a decrease in the investor's annual income equal to one-half of one per cent of his capital (assuming a rate of return of 5 per cent).

¹⁷ The investor contemplated in liquidity preference theory is one interested in income, though not to the exclusion of capital gains. He balances the cost of liquidity (the rate of return currently available on assets, which must be forgone if the assets are sold) against the advantage of maintaining a liquid position (the opportunity to secure assets at lower prices, carrying higher rates of return). As prices of assets rise and the cost of liquidity declines, each investor will reach a point at which a decline in price is considerably more likely than a further increase in price, and he will therefore sell his assets.

This view of investor behavior is quite consistent with the view we have outlined above, and differs from it only in the fact that the investor is assumed to act on an expectation of the most probable future

Thus far we have examined only the effects of the capital gains tax upon the terms on which an investor will exchange assets for cash where he has a potential tax liability. We now consider the effects of the tax where capital losses exist and where they may be offset, either partially or completely against capital gains or income.

Loss Offsets

Loss offsets provide the investor with an additional incentive to sell his assets whenever he has an unrealized capital loss. However, he gets the benefits of the loss-offset provision merely by selling his current asset holding, and his advantage is therefore independent of the disposition he makes of the proceeds from the sale. If an increase in liquidity is not advantageous in the absence of loss offsets, it should not become so where loss offsets are permitted, unless the investor views the asset which he holds as being unique.

So long as the investor is able to find other assets comparable to those currently held, he may secure all the tax advantages of a sale without making undesired changes in the liquidity of his holdings. Perhaps the best evidence that assets with similar investment characteristics do exist are the lists of essentially comparable stocks prepared by brokerage houses for customers who

direction of price movements—given the fact that the rate of return is low—rather than on an estimate of both direction and extent of price changes. (Eventually, of course, the investor would have to estimate the probable extent of the decline, if his initial assumption concerning the probability of such a decline were realized.) To the extent that the capital gains tax increases the cost of liquidity, it deters the sale of securities; and, as we have already shown, the resulting increase in the reservation price can be measured only by determining the increased cost of liquidity. This cost varies with the expectations of the individual investor, and is not a unique function of his tax liability.

wish to dispose of one asset without significantly changing the composition of their investment portfolios.

If loss-offset provisions do not increase the attractiveness of a more liquid investment position, and therefore do not affect the relative quantities of assets and cash which investors are willing to hold at any given level of asset prices, they cannot be held responsible for producing changes in the general level of asset prices.¹⁸

It might thus appear that the net effect of the capital gains tax is to produce a higher average price level for assets through its impact upon the terms on which investors are willing to sell their holdings since, as we have seen, reservation prices increase during periods in which capital gains exist. So long as we employ static analysis the conclusion appears warranted; however, if we take into account the dynamic consequences of the increase in reservation prices attributable to the capital gains tax, we may find that the tax accentuates fluctuations in prices instead of increasing the average level of prices.

If the tax leads to increased asset prices in periods when capital gains are large, it may result in a faster rate of decline, when prices eventually do decrease, than would occur in the absence

of the tax. This faster rate of decline may, in turn, ultimately result in a lower level of prices than would have been reached without the tax.¹⁹

Capital Effect

The capital gains tax not only affects the terms on which investors may be willing to sell assets, but also changes their abilities to purchase assets. Any person who, despite the deterrent effects of the tax, sells one security in order to purchase another suffers a loss in capital equal to his tax liability, or receives an addition to the capital equal to the loss offset permitted under the tax laws. These changes in capital, by affecting the sums available for further purchases, affect the future levels of asset prices.

At a time at which asset prices are increasing, a reduction in the investor's capital will act to restrict the rise, if the investor had intended to purchase other assets with the proceeds from the sale. On the other hand, if the investor had intended to increase the liquidity of his asset holding and await a lower level of prices, this reduction in capital will reduce the number of units which he is able to repurchase if the price declines in accordance with his expectations. Such a reduction in the support which the investor is able to provide to a falling market would contribute to price fluctuations.

Conversely, an increase in the investor's capital (from loss offsets) in a period in which prices are falling will enable him to provide more support to the market, and will lead to greater price stability.

In general, therefore, we might expect that the capital effect would contribute to price stability. In periods of rising

¹⁸ See, for example: Fagan, Elmer D., "The Economics of Capital Gains Taxation," *Proceedings of the National Tax Association*, 1939, p. 121.

Colm recognized that investors might take capital losses without attempting to increase the liquidity of their holdings, but observes: "It is likely, however, that in the bear market of the fall of 1937 many stockholders sold to establish losses but, expecting further declines, waited for a chance to buy at still lower prices," *Op. cit.*, p. 68.

Under the conditions of late 1937, we might well be justified in considering the decisions on the part of stockholders to exchange assets for cash (rather than for other assets—realizing capital losses in the process) as sales in expectation of future declines in prices rather than as sales "to establish losses."

¹⁹ The possibility of this type of effect has been noted by Colm, *Op. cit.*, p. 68.

prices the capital effect may or may not aid in achieving price stability (depending on investor's intentions), but in periods of falling prices, loss offsets will tend to lead to greater stability.

Conclusion

The capital gains tax does tend to increase fluctuations in the general level of asset prices, as has often been charged. This conclusion is based upon the effects of the tax on the reservation prices of investors.

For an investor interested in capital gains, the increase in reservation price will never be sufficiently large to cover his full tax liability at the sale price; and if the long-term price expected by the investor is not very substantially above the current market price, the increase may fall well short of the expected tax liability. For an investor interested in income, the increase in reservation price may be greater than his expected tax liability; however, it need not be. For either type of investor, the increase may well be substantially less than the expected tax liability, if the investor expects the price to reach a short-term level below the current one.

The above line of argument might well support the contention that the average increase in reservation price would be less than the average expected tax liability of those investors who increased their reservation prices. But not all investors who have tax liabilities will increase their reservation prices—only those who would have sold in the absence of a tax will do so. Therefore, while an increase in the reservation prices of some investors holding a particular asset will probably produce an increase in the market price of that asset (unless other investors who do not

have tax liabilities are willing to sell significant quantities of the asset at the current market price), we are unable to estimate the extent to which reservation prices will be increased from the average tax liability of investors.

Furthermore, even if, as a consequence of the tax, there occurs a substantial increase in the price of a given asset, we are not justified in concluding that the tax has contributed to a higher overall level of asset prices. The impact of the tax on the price level of any group of assets depends upon what the investors who are prevented from selling would have done with the proceeds from the sale. In preventing a sale, the tax may also have prevented a repurchase, and it is therefore only where the investor would have purchased an asset of a different type or retained his proceeds in the form of cash that the increase in reservation price has affected the price level of the type of asset currently held. The extent to which investors are willing to switch from holding one type of asset to holding another is therefore of major importance in determining the effect of the tax.

While the change in the terms on which investors are willing to dispose of assets will lead to an increase in prices during the periods of rising prices, the capital effect of the tax will tend to moderate the extent of price declines during periods of falling prices, and could also serve to restrain the increase in prices in periods of speculation if most investors who sold assets did so with the intention of purchasing others.

The adverse effects of the capital gains tax upon the general level of asset prices thus appear to be overstated in Professor Somers' analysis, both because the price effect may prove less severe than he has suggested, and because loss

offsets counteract, at least in some measure, the price effects which do occur. Whether or not the increased fluctuations in prices which may be attributed to the tax are "substantial," as Professor Somers concludes, depends upon a determination of the relative quantitative importance of the various factors we have noted above, and the dynamic consequences of any price fluctuations which may be attributed to the tax. Where the tax rate is no higher than is currently the case, and where the proportion of the current market value of assets which is subject to the capital gains tax is not large, the effect of the tax in accentuating price

fluctuations may be quite minor.²⁰ We must also recognize the possibility that empirical research might disclose that investors do not give much weight to tax considerations in arriving at an appropriate degree of liquidity, or that their decisions are made on a basis inconsistent with our assumption of economic rationality.²¹

²⁰ Professor Heller states, "the overall effective rate on capital gains is just over 13 per cent." *Federal Tax Policy for Economic Growth and Stability*, Hearings before the Subcommittee on Tax Policy of the Joint Committee on the Economic Report, Eighty-fourth Congress, First Session, p. 309.

²¹ See, for example: *The Commercial and Financial Chronicle*, Vol. 178, p. 441.

TECHNICAL NOTE:

Throughout this analysis we are neglecting brokerage commissions and stock transfer taxes.

We consider an investor who holds one unit of an asset with a market price of unity. The original purchase price is denoted by A , the anticipated short-term decrease by Q , the expected long-term price by P , and the tax rate by T .

If the investor sells the asset at the market price, he pays a tax of $T(1-A)$, and his capital after tax is $(1-T+TA)$. If the price declines to $(1-Q)$, the investor will be able to repurchase a number of shares indicated by the expression $\frac{(1-T+TA)}{(1-Q)}$.

When the price of the asset rises to P , the market value of his asset holding becomes $\frac{P(1-T+TA)}{(1-Q)}$, on which he owes a capital gains tax of

$$T \left[\frac{P(1-T+TA)}{(1-Q)} - (1-T+TA) \right].$$

Alternatively, if the investor had never sold his holding, its market value would be P , and the tax liability at this price would be $T(P-A)$.

If we calculate the capital value after taxes resulting from each of these two courses of action, and set the terms equal, we obtain an equation which defines, for any given tax liability and expected short-term price decrease, that long-term price at which an immediate sale and subsequent repurchase is as profitable as continued retention of the asset.

The derivation of this equation is given below:

$$\frac{P(1-T+TA)}{(1-Q)} - T \left[\frac{P(1-T+TA)}{(1-Q)} - (1-T+TA) \right] = P - T(P-A)$$

$$\frac{P(1-T+TA)}{(1-Q)} - \frac{PT(1-T+TA)}{(1-Q)} - P(1-T) = AT - T(1-T+TA)$$

$$P(1-T) \left[\frac{(1-T+TA)}{(1-Q)} - 1 \right] = T(A-1)(1-T)$$

$$P(1-T) \left[\frac{1-T+TA-1+Q}{1-Q} \right] = T(A-1)(1-T)$$

$$P = \frac{T(A-1)(1-Q)}{Q-T(1-A)}$$

If we plot pairs of values of P and Q, we find that they describe a curve which becomes asymptotic to that value of Q which is equal to the tax liability.

ASSESSMENT EQUALIZATION IN WASHINGTON

JAMES K. HALL *

IN a recent study of real property assessment in Washington, gross disparities were found to exist between and among parcels of property within a class, between and among classes of property, between and among areas within an assessment jurisdiction (county), and between and among assessment jurisdictions.¹ In view of these findings it appeared advisable to undertake a survey of the functioning of the county boards of equalization because these boards are charged with affirmative responsibilities in the removal of those inequities in property assessments which may be present in the assessment list submitted to them by the county assessors each year. Each member of a county board of equalization takes an oath to perform his duties fairly and impartially.

* The author is Professor of Economics at the University of Washington. Funds to cover the cost of data collection in the various counties were provided by the Washington State Research Council. Mr. Reed Durtschi compiled the field data and assisted in the statistical processing.

¹ Subcommittee on Revenue and Taxation of the Washington State Legislative Council, 1953-1955 Biennium, *A Study of Real Property Assessments in the State of Washington* (December, 1954).

This study involved a sales-assessment ratio analysis of 41,713 real estate transfers of 1953 and 992 real estate transfers of 1952, or a total sample of 42,705 real property sales. The purpose of the study was to determine (1) the existing uniformity or non-uniformity of real property assessments and (2) the relative level of assessments, measured against sales value, within and among the various counties in the state.

The boards, in the equalization of assessments, are governed by, and subjected to, the following mandatory requirements under the tax laws of Washington:

First. It *shall* raise the valuation of each tract or lot or item of real property which is returned below its true and fair value to such sum as is the true and fair value thereof, after at least five days' notice has been given in writing to the owner or agent.

Second. It *shall* reduce the valuation of each tract or lot or item which is returned above its true and fair value to such price or sum as is the true and fair value thereof.

Third. It *shall* raise the valuation of each class of personal property which is returned below its true and fair value to such sum as is the true and fair value thereof, and it *shall* raise the aggregate valuation of the personal property of each individual whenever such aggregate valuation is less than the true value of the taxable personal property possessed by such individual, to such sum or amount as is the true value thereof, after at least five days' notice has been given in writing to the owner or agent thereof.

Fourth. It *shall*, upon complaint in writing of any party aggrieved, reduce the valuation of each class of personal property enumerated on the detail and assessment list of the current year, which is returned above its true and fair value, to such sum as is the true and fair value thereof; and, upon like complaint, it *shall*

reduce the aggregate valuation of the personal property of such individual who has been assessed at too large a sum, to such sum or amount as is the true and fair value of his personal property.² (*Italics ours.*)

The statutory supervisory powers of the State Tax Commission in local property tax administration are as follows:

The tax commission shall:

(1) Exercise general supervision and control over the administration of the assessment and tax laws of the state, over county assessors, and county boards of equalization, and over boards of county commissioners, county treasurers and county auditors and all other county officers, in the performance of their duties relating to taxation, and do and perform any act or give any order or direction to any county board of equalization or to any county assessor or to any other county officer with respect to the valuation of any property, or class or classes of property in any county, township, city, or town, or as to any other matter relating to the administration of the assessment and taxation laws of the state, which, in the commission's judgment, may seem just and necessary, to the end that all taxable property shall be listed upon the assessment rolls and valued and assessed according to the provisions of law, and equalized between persons, firms, and corporations, and between the different counties, and between the different taxing units and townships, so that equality of taxation and uniformity of administration shall be secured, and all taxes shall be collected according to the provisions of law.

² Tax Commission of the State of Washington, *Annotated Code of Property Tax Laws*, 1951, Sec. 218.

County boards of equalization cannot order horizontal increases or reductions in assessed values; assessed values must be fixed with reference to each parcel of property or tract of land.

(2) Formulate such rules and processes for the assessment of both real and personal property for purposes of taxation as are best calculated to secure uniform assessment of property of like kind and value in the various taxing units of the state, and relative uniformity between properties of different kinds and values in the same taxing unit. The commission shall furnish to each county assessor a copy of the rules and processes, so formulated, and may, from time to time, make such changes therein as it deems advisable, informing all assessors of any changes made.

(3) Visit the counties of the state, for investigation of the methods adopted by county assessors and boards of county commissioners in the assessment and equalization of taxation of real and personal property and examine into all cases where evasion of property taxation is alleged, and ascertain where existing laws are defective, or improperly or negligently administered.³

Further:

The tax commission shall:

(1) Confer with, advise, and direct assessors, boards of equalization, boards of county commissioners, county treasurers, county auditors, and all other county and township officers as to their duties under the laws relating to taxation, and direct what proceedings, actions, or prosecutions shall be instituted to enforce the laws relating to penalties, liabilities, and punishment of public officers, persons, and officers or agents of corporations for failure or neglect to comply with laws governing the return, assessment, and taxation of property, and the collection of taxes, and cause complaint to be made against any such public officer in the proper county for his removal from office for official misconduct or neglect of duty. In the execution of these powers and duties the commission, or any member thereof, may call upon prosecuting

³ *Ibid.*, Sec. 49.

attorneys or the attorney general, who shall assist in the commencement and prosecution of actions for penalties and forfeiture, liabilities, and punishments for violations of the laws of the state respecting the assessment and taxation of property.

(2) Prescribe all forms of books and blanks to be used in the assessment and collection of taxes

(3) Require county, city, and town officers to report information as to the assessment of property, equalization of taxes . . . and other information which the commission may request.⁴

In addition:

The tax commission shall examine and test the work of county assessors at any time, and exercise all rights and powers of such assessors for the examination of persons, property, and for the discovery of property subject to taxation, and if it ascertains that any taxable property is omitted from the assessment list, or not assessed or valued according to law, it shall bring the same to the attention of the assessor of the proper county in writing, and if such assessor neglects or refuses to comply with the request of the commission to place such property on the assessment list, or to correct such incorrect assessment or valuation the commission may prepare a supplement to such assessment list, which shall include all property required by the commission to be placed on the assessment list and all corrections required to be made. The supplement shall be filed with the assessor's assessment list and shall thereafter constitute an integral part thereof to the exclusion of all portions of the original assessment list inconsistent therewith, and shall be submitted therewith to the county board of equalization.⁵

Thoroughly investigate all complaints which may be made to it of illegal, un-

just, or excessive taxation, and endeavor to ascertain to what extent and in what manner, if at all, the present system is unequal or oppressive.⁶

Also:

The tax commission may direct and order any county board of equalization to raise or lower the valuation of any taxable property, or to add any property to the assessment list, or to perform or complete any other duty required by statute, or to reconvene after its adjournment for the purpose of performing any order or requirement made by the commission, and may make such orders as it shall determine to be just and necessary.

The commission may require any county board of equalization to reconvene at any time If such board of equalization fails or refuses forthwith to comply . . . the commission may take any other appropriate action, or make necessary corrections or changes in the assessment list, and such corrections and changes shall be a part of the record of the proceedings of such board of equalization

The necessary expense incurred by the commission in making such reassessment or adding such property to the assessment list shall be borne by the county in which the property as reassessed or so added to the assessment list is situated, and shall be paid out of the proper funds of such county upon the order of the commission.⁷

The State Tax Commission has appellate jurisdiction in regard to property assessments for local tax purposes:

Any taxpayer or taxing unit feeling aggrieved by the action of any county board of equalization may appeal to the tax commission by filing with the county auditor a notice of appeal in duplicate within ten days after the action of such board of equalization, which notice shall

⁴ *Ibid.*, Sec. 50.

⁵ *Ibid.*, Sec. 51.

⁶ *Ibid.*, Sec. 53.

⁷ *Ibid.*, Sec. 54.

specify the actions complained of, and the auditor shall forthwith transmit one of said notices to the tax commission. In like manner any county assessor may appeal to the commission from any action of any county board of equalization. The commission shall require the board appealed from to certify the minutes of its proceedings resulting in such action and all evidence taken in connection therewith, and may receive further evidence, and shall make such order as in its judgment is just and proper.⁸

In the discharge of its powers and responsibilities the State Tax Commission is vested with the following authority over local taxing officials:

Every public officer shall comply with any lawful order, rule, or regulation of the tax commission.

Whenever it appears to the commission that any public officer or employee whose duties relate to the assessment or equalization of assessments of property for taxation, or to the levy or collection of taxes, has failed to comply with the provisions of law relating to such duties or the rules of the commission made in pursuance thereof, the commission after a hearing on the facts may issue its order directing such public officer or employee to comply with such provisions of law or of its rules, and if for a period of ten days after service on him of the commission's order he neglects or refuses to comply therewith, the commission may apply to a judge of the superior court or court commissioner of the county in which such public officer or employee holds office for an order returnable within five days from the date thereof to compel him to comply with such provisions of law or of the commission's order, or to show cause why he should not be compelled so to do. Any order issued by the judge pursuant to such order to show cause shall be final. The remedy herein provided shall be cumulative and shall not exclude the com-

mission from exercising any power or rights otherwise granted.⁹

County Boards of Equalization

The survey of the operation of county boards of equalization in regard to the process of assessment equalization covers the period 1946 to 1955 inclusive, for each of the 39 counties of the state. Because of the general unreliability of the questionnaire as a device to obtain adequate information, the necessary data were tabulated from the official records available in each county. Taxpayer appeals, i.e., petitions, to county boards of equalization for assessment relief were classified as to the number rejected and the number granted with reference to real property and to tangible personal property, the assessed value of the property (involved in appeals) prior to action by the county boards of equalization, and the assessed value subsequent thereto. In a few instances county records for certain years were not complete, which necessitated recourse to the files of the petitioning taxpayer. Unfortunately, an attitude of disinterest and irresponsibility by county officials in the preservation and protection of these important records was observable in some counties. This attitude was possibly a reflection, in part, of the low regard these officials have for the county equalization process as a means of correcting assessment inequities.

One measure of the relative effectiveness of county equalization as a means of correcting assessment inequalities is found in the number of taxpayer appeals to the county boards. If the number of taxpayer petitions is comparatively few (as compared with the total number of taxable parcels of real

⁸ *Ibid.*, Sec. 61.

⁹ *Ibid.*, Sec. 60.

and personal property), the presumption exists that the county equalization process, as related to taxpayer-initiated efforts of correction, is of limited effectiveness in removing assessment inequities. With county boards of equalization apparently rarely implementing their statutory responsibility to initiate, on their own motion, action leading to correction of unequal assessments, such correction of discriminatory assessments as may occur depends largely on the number and importance of the taxpayer-initiated appeals. There are many reasons why taxpayers may not take advantage of their statutory right to appeal to county boards of equalization for correction of inequitable assessments. Among these reasons are: the cost and the time involved in the preparation and presentation of a petition and in procuring the evidence necessary to support a well-founded appeal; a lack of knowledge of the average assessment ratio currently prevailing and the dispersion of assessments therefrom; the fear of reprisal by county assessors—an important consideration; and a lack of confidence in the sincerity and good intentions of county boards of equalization—a belief that appeals receive cursory consideration and that the decisions of the boards on petitions are politically motivated. In addition, when *reliable* information is not available as to the current sales-assessment ratios obtaining in the various counties, taxpayers frequently assume that they are the beneficiaries of the unequal assessments when, in fact, the opposite may be true. County assessors, in the "standard" treatment given to complaining taxpayers, contribute to this belief by pointing out that the property in question is underassessed with reference to the statutory requirement,

and, further, that insistence by the taxpayer that his property be reassessed will lead only to an increase in his own assessment as well as the assessments of his neighbors, to which he has called attention in his allegation that his property is overassessed. Taxpayers appear generally to believe that the county boards of equalization will always presume the correctness of assessments entered by the county assessors on the assessment list and will present a united front with the assessor to those who may challenge the validity of the assessments.

The number of taxpayer appeals to the 39 county boards of equalization over the ten-year period, 1946 to 1955 inclusive, are reported in Table 1, classified by real property and tangible personal property.¹⁰ Of a total of 3,755 taxpayer appeals, 3,553 appeals, or 94.6 per cent, were for correction of assessments against real property. Taxpayer petitions for adjustment of assessments against tangible personal property numbered 202, or 5.4 per cent—a minor part of the total.

Unfortunately, the total number of parcels of real and tangible personal property listed on the property tax rolls is not available. Consequently, the number of taxpayer appeals to the total number of taxable parcels of property for the individual counties, or for counties as a whole, for a particular year, or for the full ten-year period, could not be calculated. It is believed, however, that the proportion of appeals to the total number of taxable parcels of property any one year would be of a nominal order, even for the counties

¹⁰ Tables 1, 3 and 4 are presented in summary form. Copies of the detailed tables, which record the behavior of the county boards of equalization by years (1946-1955) in assessment equalization, may be obtained by writing the author.

with a relatively large number of taxpayer appeals.

TABLE 1

NUMBER OF TAXPAYERS APPEALING TO COUNTY
BOARDS OF EQUALIZATION FOR SUBSTANTIVE
CORRECTION OF ASSESSED VALUES, 1946
TO 1955 INCLUSIVE

Counties	Total Real Property	Total Tangible Personal Property	Grand Total
Adams	12	0	12
Asotin	30	0	30
Benton	75	2	77
Chelan	22	1	23
Clallam	271	58	329
Clark	13	6	19
Columbia	6	0	6
Cowlitz	194	12	206
Douglas	217	9	226
Ferry	4	0	4
Franklin	7	2	9
Garfield	0	0	0
Grant	12	0	12
Grays Harbor	98	3	101
Island	40	2	42
Jefferson	23	0	23
King	633	15	648
Kitsap	346	6	352
Kittitas	65	1	66
Klickitat	54	2	56
Lewis	103	4	107
Lincoln	2	0	2
Mason	173	4	177
Okanogan	41	3	44
Pacific	44	3	47
Pend Oreille	41	1	42
Pierce	229	13	242
San Juan	136	0	136
Skagit	45	1	46
Skamania	28	3	31
Snohomish	204	24	228
Spokane	22	4	26
Stevens	4	0	4
Thurston	59	2	61
Wahkiakum	3	1	4
Walla Walla	63	10	73
Whatcom	214	7	221
Whitman	19	2	21
Yakima	1	1	2
	3,553	202	3,755

Note: Appeals by county assessors and/or taxpayers for correction of errors in assessments subsequent to closing of books are excluded.

Table 2 is a frequency distribution of the number of taxpayer appeals in the individual counties by years over the ten-year period. This table reveals,

in part, the extent to which the county equalization function is going by default. In 1946, 19 (or approximately one-half) of the 39 counties had no taxpayer appeals to the county boards of equalization, and in 30 of the counties there were less than 5 appeals; in 1947 there were 17 counties without taxpayer appeals, and a total of 29 counties with less than 5 appeals; in 1948, 15 counties were without taxpayer appeals, and 25 counties had less than 5 appeals; in 1949, 8 counties had no taxpayer appeals, and 18 counties had less than 5 appeals; in 1950, 11 counties were without taxpayer appeals, and 23 counties had less than 5 appeals; in 1951 there were no taxpayer appeals in 12 counties, and 26 counties had less than 5 appeals; in 1952, 6 counties—the lowest number over the ten-year period—were without taxpayer appeals, with 22 counties having less than 5 appeals; in 1953, 10 counties had no taxpayer appeals, and 19 counties had less than 5 appeals; in 1954, 11 counties were without taxpayer appeals, and 24 counties had less than 5 appeals; and in 1955, 10 counties had no taxpayer appeals, and 25 counties had less than 5 appeals. Counties with 10 or more taxpayer appeals ranged from a low of 4 in 1946 to a high of 14 in 1953.

Table 3 lists the 39 counties in rank order (low to high) of the average number of taxpayer appeals per year by county over the ten-year period. Shown also is the coefficient of dispersion of assessments of real property for the individual counties, based on a sales-assessment ratio analysis of 1953. The coefficient of dispersion is a direct measure of the non-uniformity of assessments. The larger the coefficient of dispersion the less uniform are assessments. It will be noted that the num-

ber of taxpayer appeals to county boards of equalization is not proportionate to the degree of assessment inequality, as perhaps would be anticipated. The counties with a relatively small number of taxpayer appeals per year had relatively high coefficients of dispersion. Garfield County, with no taxpayer appeals, has a coefficient of dispersion of 68.8 per cent; Lincoln County, with an average number of taxpayer appeals per year of .2, has a coefficient of dispersion of 64.6 per cent; Yakima County, with an average number of appeals per year of .2, has a dispersion coefficient of 48.3 per cent;

boards of equalization by years, and the average number of appeals per county per year, if distributed on a uniform basis. Such a distribution, of course, disregards variations among the counties in the number of taxpayers and the taxable parcels of property. The smallest number of taxpayer appeals, 249, occurred in 1946; the largest number, 554, in 1949. The large measure of unevenness in the year-to-year volume of appeals is evident in these figures.

Table 5 records the total number of taxpayer appeals to the county boards of equalization, the number of appeals

TABLE 2
FREQUENCY DISTRIBUTION OF COUNTIES BY NUMBER OF TAXPAYER APPEALS 1946-1955

Number of Taxpayer Appeals by Counties	Number of Counties									
	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
None	19	17	15	8	11	12	6	10	11	10
1-4	11	12	10	10	12	14	16	9	13	15
5-9	5	4	4	11	8	6	8	6	4	7
10 or more	4	6	10	10	8	7	9	14	11	7
Total	51	39	39	39	39	39	39	39	39	39

and Ferry, Wahkiakum and Stevens Counties, with an average number of appeals of .4 per year, have dispersion coefficients of 72.2, 47.6, and 72.0 per cent respectively. On the other hand, counties with the highest average number of taxpayer appeals per year tend, in general, to have relatively low coefficients of dispersion, as illustrated by King, Kitsap, Pierce and Snohomish Counties. These counties averaged 64.8, 35.2, 24.2, and 22.8 appeals per year and had coefficients of dispersion of 40.1, 46.4, 39.2, and 43.3 per cent respectively. Clallam County, with 32.9 appeals per year, was an exception, having a coefficient of dispersion of 61.5 per cent.

Table 4 indicates the total number of taxpayer appeals to the 39 county

granted, and the assessed value of real property and tangible personal property, by counties, for the period 1946 to 1955 inclusive.

A total of 3,553 taxpayer petitions were submitted for downward adjustment in the assessed values of real property (Table 6). Of this number 1,411, or 39.7 per cent, were granted, with reductions in assessed values aggregating \$3,680,966, or 5.4 per cent. Mason County is the only county in which the assessed value of the total real property under appeal was increased as a result of board action. This was the result of an appeal by Rayonier, Inc. The liberality of county boards of equalization in their downward adjustments in assessed values varied greatly. The Ferry, Stevens and Wahkiakum Boards of

Equalization rejected all taxpayer appeals, with no revision in assessed values. On the other hand, the Grant and

TABLE 3

AVERAGE NUMBER OF TAXPAYER APPEALS BY COUNTIES PER YEAR, 1946 TO 1955 INCLUSIVE

Counties	Average per Year	Property Assessment Coefficient of Dispersion*
Garfield .....	.0	68.8%
Lincoln .....	.2	64.6
Yakima .....	.2	48.3
Ferry .....	.4	72.2
Wahkiakum .....	.4	47.6
Stevens .....	.4	72.0
Columbia .....	.6	49.9
Franklin .....	.9	47.7
Adams	1.2	56.6
Grant	1.2	40.0
Clark	1.9	44.3
Whitman	2.1	51.3
Chelan	2.3	47.1
Jefferson	2.3	48.8
Spokane	2.6	40.2
Asotin	3.0	38.4
Skamania	3.1	51.6
Island	4.2	61.6
Pend Oreille	4.2	53.2
Okanogan	4.4	69.3
Skagit	4.6	79.8
Pacific	4.7	51.2
Klickitat	5.6	52.9
Thurston	6.1	39.7
Kittitas	6.6	41.3
Walla Walla	7.3	32.4
Benton	7.7	40.4
Grays Harbor	10.1	56.4
Lewis	10.7	44.7
San Juan	13.6	57.5
Mason	17.7	58.5
Cowlitz	20.6	39.9
Whatcom	22.1	65.7
Douglas	22.6	60.4
Snohomish	22.8	43.3
Pierce	24.2	39.2
Clallam	32.9	61.5
Kitsap	35.2	46.4
King	64.8	40.1

* Subcommittee on Revenue and Taxation of the Washington State Legislative Council, '953-1955 Biennium, *A Study of Real Property Assessments in the State of Washington* (December, 1954), p. 15.

Skagit Boards of Equalization reduced the assessed valuations of petitioning taxpayers in the aggregate by 36.0 and 31.9 per cent respectively.

Petitions requesting adjustments in the assessed values of *tangible personal* property over the ten-year period were 202, of which 73, or 36.1 per cent, were granted (Table 7). The reduction in assessed value amounted to \$1,247,233, or 1.93 per cent. In general, county boards of equalization were decidedly less liberal in granting downward revisions of the assessed values of tangible personal property than of real property—1.93 per cent of tangible personal property as compared with 5.40 per cent for real property. Certain boards, however, displayed an extraordinary willingness to reduce the

TABLE 4

AVERAGE NUMBER OF TAXPAYER APPEALS PER COUNTY, BY YEAR, 1946 TO 1955 INCLUSIVE

Year	Total All Counties	Average Per County
1946	249	6.4
1947	356	9.1
1948	391	10.0
1949	554	14.2
1950	301	7.7
1951	252	6.5
1952	521	13.4
1953	518	13.3
1954	327	8.4
1955	284	7.3

assessed values of tangible personal property. The Island County Board, for example, cut assessments 80.63 per cent, while the Kitsap, Skagit, and Skamania Boards approved reductions of 55.56, 53.66 and 47.12 per cent respectively. On the other hand, the Benton, Chelan, Cowlitz, Franklin, Grays Harbor, Pacific, Pend Oreille, Spokane, Thurston, Wahkiakum, Whitman and Yakima Boards refused any reductions in the assessed values of personal property during the ten-year period. The Mason County Board of Equalization was the only board to increase the aggregate assessed value of the personal

property under appeal. This was caused by board action in the case of an appeal by Rayonier, Inc.; a similar decision was made on its real property appeal as noted above.

may be explained by several factors: the willingness of many assessors to accept valuations on tangible personal property offered by taxpayer-owners; the application of the property tax es-

TABLE 5

NUMBER OF TAXPAYER APPEALS TO COUNTY BOARDS OF EQUALIZATION FOR SUBSTANTIVE CORRECTION OF ASSESSED VALUES, 1946 TO 1955 INCLUSIVE
(Total Real and Tangible Personal Property)

Counties	Total Number	Number Granted	Assessed Value Prior to Board Action	Assessed Value Subsequent to Board Action	Per Cent Change in Assessed Value
Adams	12	9	\$ 87,064	\$ 71,510	-17.865%
Asotin	30	17	90,005	84,665	- 5.933
Benton	77	54	604,219	525,759	-12.985
Chelan	23	14	227,420	186,720	-17.896
Clallam	329	148	14,853,762	13,612,499	- 8.357
Clark	19	2	439,639	435,509	- .939
Columbia	6	5	14,870	11,310	-23.941
Cowlitz	206	130	52,545,350	52,489,953	- .105
Douglas	226	192	785,043	622,644	-20.687
Ferry	4	0	4,290	4,290	0
Franklin	9	3	61,210	57,080	- 6.747
Garfield	0	0	0	0	0
Grant	12	5	150,540	96,340	-36.004
Grays Harbor ..	101	35	290,966	252,251	-13.306
Island	42	14	252,485	88,140	-65.091
Jefferson	23	3	30,305	28,945	- 4.488
King	648	148	28,264,450	27,758,430	- 1.790
Kitsap	352	113	462,370	351,514	-23.976
Kittitas	66	27	151,560	142,110	- 6.235
Klickitat	56	42	249,806	225,850	- 9.590
Lewis	107	54	321,720	276,150	-14.164
Lincoln	2	1	62,100	62,000	- .161
Mason	177	36	9,827,227	10,446,754	+ 6.304
Okanogan	44	20	493,678	468,145	- 5.172
Pacific	47	28	70,084	58,337	-16.761
Pend Oreille ..	42	4	176,758	175,658	- .622
Pierce	242	32	2,131,088	1,919,878	- 9.911
San Juan	136	80	448,365	375,685	-16.210
Skagit	46	30	144,275	96,340	-33.225
Skamania	31	16	11,736,352	9,466,187	-19.343
Snohomish	228	53	5,182,123	5,116,443	- 1.267
Spokane	26	4	558,745	538,795	- 3.571
Stevens	4	0	2,050	2,050	0
Thurston	61	46	541,191	465,871	-13.917
Wahkiakum	4	0	28,230	28,230	0
Walla Walla	73	35	818,415	707,055	-13.607
Whatcom	221	74	557,070	492,629	-11.568
Whitman	21	9	66,470	61,570	- 7.372
Yakima	2	1	10,000	9,800	- 2.000
	3,755	1,484	\$132,741,295	\$127,813,096	- 3.713

The relatively small number of taxpayer appeals on assessments of tangible personal property as compared with real property—202 to 3,553 petitions, or only 5.4 per cent of total petitions—

entially to only a portion of the existing tangible personal property, namely, business personalty—which limits the base of the tax; and the cursory and incomplete listing of the business per-

sonalty which should appear on the tax rolls. The statutory exemption of all household goods and furnishings in actual use by the owner and all personal

For the state as a whole, the submission by taxpayers of an aggregate assessed value of \$132,741,295 to county boards of equalization for adjustment,

TABLE 6
NUMBER OF TAXPAYER APPEALS, REAL PROPERTY, BY COUNTIES TO COUNTY BOARDS
OF EQUALIZATION, 1946 TO 1955 INCLUSIVE

Counties	Total Number	Number Granted	Assessed Value Prior to Board Action	Assessed Value Subsequent to Board Action	Per Cent Change in Assessed Value
Adams	12	9	\$ 87,064	\$ 71,510	-17.865%
Asotin	30	17	90,005	84,665	-5.933
Benton	75	54	430,329	351,869	-18.233
Chelan	22	14	226,020	185,320	-18.007
Clallam	271	120	3,450,715	2,835,809	-17.820
Clark	13	1	40,690	40,510	-.442
Columbia	6	5	14,870	11,310	-23.941
Cowlitz	194	130	23,140,237	23,084,840	-.239
Douglas	217	185	662,204	524,559	-20.786
Ferry	4	0	4,290	4,290	.0
Franklin	7	3	28,845	24,715	-14.318
Garfield	0	0	0	0	.0
Grant	12	5	150,540	96,340	-36.004
Grays Harbor	98	35	277,906	239,191	-13.931
Island	40	12	51,595	49,230	-4.584
Jefferson	23	3	30,305	28,945	-4.488
King	633	146	10,373,950	10,217,930	-1.504
Kitsap	346	112	460,120	350,514	-23.821
Kittitas	65	26	149,830	140,460	-6.254
Klickitat	54	41	230,683	206,877	-10.320
Lewis	103	51	299,830	258,955	-13.633
Lincoln	2	1	62,100	62,000	-.161
Mason	173	34	9,661,407	10,264,221	+ 6.239
Okanogan	41	19	489,348	464,815	-5.013
Pacific	44	28	59,659	47,912	-19.690
Pend Orielle	41	4	59,402	58,302	-1.852
Pierce	229	27	1,831,628	1,629,228	-11.050
San Juan	136	80	448,365	375,685	-16.210
Skagit	45	29	136,075	92,540	-31.993
Skamania	28	14	11,732,702	9,464,257	-19.334
Snohomish	204	46	1,620,094	1,600,019	-1.239
Spokane	22	4	355,505	335,555	-5.612
Stevens	4	0	2,050	2,050	.0
Thurston	59	46	255,345	180,025	-29.497
Wahkiakum	3	0	26,330	26,330	.0
Walla Walla	63	32	589,725	498,920	-15.398
Whatcom	214	68	535,025	479,224	-10.430
Whitman	19	9	47,830	42,930	-10.245
Yakima	1	1	2,400	2,200	-8.333
Total	3,553	1,411	\$68,115,018	\$64,434,052	-5.404

effects of an individual for his exclusive use and benefit, combined with an additional exemption of personal property of \$300 (of actual value) to each head of a family, apparently has been liberally construed and applied by the county assessors.¹¹

which resulted in a downward revision of \$4,928,199 (3.71 per cent), over the period 1946 to 1955 inclusive, suggests that property owners have displayed little initiative in trying to correct inequitable assessments. The fig-

¹¹ *Ibid.*, Sec. 153.

ures also suggest that county boards of equalization, in general, and for the great majority of the appealing taxpayers, have provided only nominal re-

assessments, county boards have disregarded the existing gross inequalities in property assessments and provided, in general, only token relief to those tax-

TABLE 7
NUMBER OF TAXPAYER APPEALS, TANGIBLE PERSONAL PROPERTY, BY COUNTIES
TO COUNTY BOARDS OF EQUALIZATION, 1946 TO 1955 INCLUSIVE

Counties	Total Number	Number Granted	Assessed Value Prior to Board Action	Assessed Value Subsequent to Board Action	Per Cent Change in Assessed Value
Adams	0	0	\$ 0	\$ 0	.0 %
Asotin	0	0	0	0	.0
Benton	2	0	173,890	173,890	.0
Chelan	1	0	1,400	1,400	.0
Clallam	58	28	11,403,047	10,776,690	— 5.493
Clark	6	1	398,949	394,999	— .990
Columbia	0	0	0	0	.0
Cowlitz	12	0	29,405,113	29,405,113	.0
Douglas	9	7	122,839	98,085	— 20.152
Ferry	0	0	0	0	.0
Franklin	2	0	32,365	32,365	.0
Garfield	0	0	0	0	.0
Grant	0	0	0	0	.0
Grays Harbor	3	0	13,060	13,060	.0
Island	2	2	200,890	38,910	— 80.631
Jefferson	0	0	0	0	.0
King	15	2	17,890,500	17,540,500	— 1.956
Kitsap	6	1	2,250	1,000	— 55.556
Kittitas	1	1	1,730	1,650	— 4.624
Klickitat	2	1	19,123	18,973	— .784
Lewis	4	3	21,890	17,195	— 21.448
Lincoln	0	0	0	0	.0
Mason	4	2	165,820	182,533	+ 10.079
Okanogan	3	1	4,330	3,330	— 23.095
Pacific	3	0	10,425	10,425	.0
Pend Oreille	1	0	117,356	117,356	.0
Pierce	13	5	290,460	290,650	— 2.942
San Juan	0	0	0	0	.0
Skagit	1	1	8,200	3,800	— 53.659
Skamania	3	2	3,650	1,930	— 47.123
Snohomish	24	7	3,562,029	3,516,424	— 1.280
Spokane	4	0	203,240	203,240	.0
Stevens	0	0	0	0	.0
Thurston	2	0	285,846	285,846	.0
Wahkiakum	1	0	1,900	1,900	.0
Walla Walla	10	3	228,690	208,135	— 8.988
Whatcom	7	6	22,045	13,405	— 39.193
Whitman	2	0	18,640	18,640	.0
Yakima	1	0	7,600	7,600	.0
Total	202	73	\$64,626,277	\$63,379,044	— 1.930

lief. The failure of property owners to exercise initiative in an endeavor to correct unequal assessments is far less difficult to understand than is the attitude and policy of county boards of equalization. Despite their affirmative statutory responsibilities to equalize as-

sessments, county boards have disregarded the existing gross inequalities in property assessments and provided, in general, only token relief to those taxpayers who appeal their assessments; at the same time they have taken no important substantive action on their own initiative to correct these inequalities.

Table 8 shows the assessed value of the real and tangible personal property on appeal by taxpayers to county boards

of equalization, the adjustment in assessed values, and the relationship of by counties, 1946 to 1955 inclusive. This table reveals the relative impor-

TABLE 8

ASSESSED VALUE OF REAL AND TANGIBLE PERSONAL PROPERTY INVOLVED IN TAXPAYER APPEALS
(I.E., PETITIONS) TO COUNTY BOARDS OF EQUALIZATION, 1946 TO 1955 INCLUSIVE,
TOTAL ADJUSTMENT IN ASSESSED VALUE AND TOTAL VALUE OF PROPERTY
LOCALLY ASSESSED (I.E., BY COUNTY ASSESSORS)

Counties	Total Assessed Value of Prop- erty Under Appeal	Total Adjustment in Assessed Value by Board of Equalization	Total Assessed Value of Prop- erty Locally Assessed* (millions)	Per Cent Adjust- ment in Assessed Value to Total Value Property Locally Assessed
Adams	\$ 87.064	\$ -15.554	\$ 120.540	-.013%
Asotin	90.005	- 5.340	65.275	-.008
Benton	604.219	-78.460	185.383	-.042
Chelan	227.420	-40.700	295.889	-.014
Clallam	14,853.762	-1,241.263	201.287	-.017
Clark	439.639	- 4.130	397.060	-.001
Columbia	14.870	- 3.560	90.704	-.004
Cowlitz	52,545.350	- 55.397	443.464	-.012
Douglas	785.043	-162.399	109.207	-.149
Ferry	4.290	0	21.704	.0
Franklin	61.210	- 4.130	115.413	-.004
Garfield	0	0	66.537	.0
Grant	150.540	- 54.200	181.009	-.030
Grays Harbor ..	290.966	- 38.715	316.769	-.012
Island	252.485	-164.345	53.217	-.309
Jefferson	30.305	- 1.360	74.856	-.002
King	28,264.450	-506.020	5,686.828	-.009
Kitsap	462.370	-110.856	344.117	-.032
Kittitas	151.560	- 9.450	163.449	-.006
Klickitat	249.806	-23.956	115.311	-.021
Lewis	321.720	-45.570	366.010	-.012
Lincoln	62.100	- 100	197.009	.0
Mason	9,827.227	+ 619.527	115.497	+ .536
Okanogan	493.678	-25.533	175.306	-.015
Pacific	70.054	-11.747	142.494	-.008
Pend Oreille ..	176.758	- 1.100	52.839	-.002
Pierce	2,131.088	-211.210	1,406.056	-.015
San Juan	448.365	- 72.680	29.922	-.243
Skagit	144.275	-47.935	275.535	-.017
Skamania	11,736.352	-2,270.165	44.223	-5.133
Snohomish	5,182.123	-65.680	643.919	-.010
Spokane	558.745	-19.950	1,817.431	-.001
Stevens	2.050	0	114.884	.0
Thurston	541.191	- 75.320	250.657	-.030
Wahkiakum	28.230	0	26.075	.0
Walla Walla	818.415	-111.360	376.796	-.030
Whatcom	557.070	-64.441	399.035	-.016
Whitman	66.470	- 4.900	405.914	-.001
Yakima	10.000	- 200	700.081	.0
	\$132,741,295	-\$4,928,190	\$16,587,702	-.030

* Aggregate assessed value of real and personal property (exclusive of inter-county public utility companies) as equalized by county boards of equalization. Data from minutes and official Proceedings of the State Board of Equalization of Washington, 1946 to 1955 inclusive. Inter-county public utility companies are assessed by the State Tax Commission. Figures rounded will not add to total.

the adjustments in assessed values to the total value of property locally assessed, tance of adjustments in assessed values by county boards of equalization to the

total value of property locally assessed, *as equalized* by the county boards of equalization. It should be noted, however, that the relative importance of these adjustments in assessed value is overstated because the adjustments in assessed value are compared with the total value of property locally assessed after these (and other revisions) have served to reduce this segment of the property tax base (an equalized value). The amount of overstatement in the reported percentages, however, is nominal.

TABLE 9
ADJUSTMENT IN ASSESSED VALUE TO TOTAL
VALUE OF PROPERTY LOCALLY ASSESSED

Years	Per Cent
1946	-.021%
1947	+.033
1948	-.013
1949	-.078
1950	-.084
1951	-.006
1952	-.070
1953	-.029
1954	-.011
1955	-.013
Total	-.030

It is apparent that adjustments in assessed value made on behalf of petitioning taxpayers by county boards of equalization, for the entire state, have been of negligible financial importance to the base of the property tax. The adjustments in assessed values to the assessed and equalized value of property locally assessed on the *minus* side range from a low of .006 per cent in 1951 to a high of .08 per cent in 1950. In one year only, 1947, is the adjustment positive. The adjustment then was .03 per cent and was occasioned by an upward revision of the assessed valuation of Rayonier, Inc., by the Mason County Board of Equalization. The upward adjustment in assessed value for this

one petitioning taxpayer was so substantial that it outweighed downward adjustments made by county boards of equalization elsewhere in the state. The Skamania County Board of Equalization made large downward revisions in assessed valuations upon taxpayer appeal in 1949, 1950 and 1953 when assessed valuations were reduced from \$1,744,620 to \$1,047,858, from \$2,243,752 to \$1,065,520, and from \$2,299,060 to \$1,909,239. The Clallam County Board of Equalization in 1952 and 1954, upon taxpayer complaint, reduced assessed valuations from \$4,964,067 to \$4,116,446, and from \$4,642,887 to \$4,333,000.

The nominal character of the adjustments in assessed valuations made by the 39 county boards of equalization upon taxpayer petitions is indicated by the fact that the net reduction over the ten-year period was \$4,928,199 (upon an assessed valuation of \$132,741,295), as compared with a total value of property locally assessed and equalized of \$16,587,702,000. In percentage terms the reduction amounted to only .03 per cent.

State Tax Commission Revisions in Assessed Valuations upon Taxpayer and Assessor Appeals from County Boards of Equalization

As previously noted, property owners and county assessors may appeal to the State Tax Commission if dissatisfied with decisions of the county boards of equalization. Table 10 lists the number of appeals to the State Tax Commission from the county boards, the assessed value of the property under appeal, the adjustment in assessed value, and the percentage adjustment in the assessed value of property, by counties, 1946 to 1955 inclusive.

It will be observed that 168 appeals were made by taxpayers and assessors This represents an average yearly volume of appeals of 16.8, and an average

TABLE 10
APPEALS (I.E., PETITIONS) FROM COUNTY BOARDS OF EQUALIZATION TO
STATE TAX COMMISSION RE ADJUSTMENT IN ASSESSED VALUATION*
(1946 to 1955 Inclusive)

Counties	Total Number		Total Assessed Value of Property	Total Adjust- ment in Assessed Value by Tax Commission	Per Cent Adjust- ment in As- sessed Value to Assessed Value of Property under Appeal
	Granted	Rejected			
Adams	0	0			
Asotin	0	0			
Benton	2	4	\$ 229,105	\$ — 2,850	— 1.24%
Chelan	0	0			
Clallam	7	2	4,774,929	— 512,196	— 10.73
Clark	0	4	389,375	0	.0
Columbia	0	0			
Cowlitz	6	7	49,648,932	— 1,841,433	— 3.71
Douglas	0	0			
Ferry	0	0			
Franklin	0	1	17,320	0	.0
Garfield	0	0			
Grant	0	0			
Grays Harbor ..	0	0			
Island	0	0			
Jefferson	0	0			
King	17	59	23,912,420	— 5,814,174	— 24.31
Kitsap	1	2	3,600	— 60	— 1.67
Kittitas	0	0			
Klickitat	0	0			
Lewis	1	1	2,800	— 330	— 11.79
Lincoln	0	0			
Mason	3	3	3,962,199	— 418,154	— 10.56
Okanogan	0	0			
Pacific	0	0			
Pend Oreille ..	0	0			
Pierce	5	7	360,160	— 26,260	— 7.29
San Juan	0	0			
Skagit	0	0			
Skamania	8	3	8,327,257	— 960,052	— 11.53
Snohomish	7	8	4,607,153	— 297,378	— 6.45
Spokane	0	2	200,500	0	.0
Stevens	0	0			
Thurston	0	2	285,846	0	.0
Wahkiakum	0	0			
Walla Walla	1	2	31,655	— 275	— .87
Whatcom	0	1	2,845	0	.0
Whitman	0	1	18,310	0	.0
Yakima	0	1	7,600	0	.0
	58	110	\$96,782,006	— \$9,873,162	— 10.20

* Number of individual taxpayer appeals (which may involve two or more parcels of property in some instances for a particular taxpayer) plus appeals by county assessors which were as follows: one appeal by the Benton County Assessor in 1947, and one appeal by the King County Assessor in 1954.

from decisions of the county boards of equalization to the State Tax Commission during the 1946-1955 period. of appeals per year per county board of .43. It may be recalled that 3,755 taxpayer petitions were laid before the

county boards during this same period. Thus only 4.5 per cent of the petitions acted upon by county boards were appealed to the State Tax Commission. This figure includes appeals by county assessors as well as taxpayers.

Of the 168 appeals submitted, the State Tax Commission accepted 58 and rejected 110. The proportion of the total petitions rejected is 65 per cent, or two of every three petitions. The assessed value of the property under appeal was \$96,782,006; the State Tax

trast, in 1955 the assessed valuations in dispute were \$325,205, with a total of 4 appeals. Since 1953, both the number of appeals and the assessed valuations involved in these appeals have declined sharply, with the proportion of the appeals rejected rising from 37.5 per cent in 1953 to 43 per cent in 1954, and 75 per cent in 1955.

Appeals to the State Tax Commission during the ten-year period were confined to 19 of the 39 county boards of equalization. County boards of

TABLE 11
NUMBER OF APPEALS, NUMBER OF COUNTY BOARDS OF EQUALIZATION INVOLVED
AND PER CENT ADJUSTMENT IN ASSESSED VALUATION

Year	Number of Appeals		Number of County Boards From Which Appeals Were Taken	Per Cent Adjustment in Assessed Value to Assessed Value of Property Under Appeal
	Granted	Rejected		
1946	1	19	2	— .66%
1947	9	21	4	— 4.27
1948	3	26	11	— 3.02
1949	12	4	4	— 11.18
1950	1	3	3	— .09
1951	5	7	4	— 1.55
1952	7	15	14	— 21.67
1953	15	9	7	— 5.83
1954	4	3	5	— 22.41
1955	1	3	3	— 3.19
Total	58	110	57	— 10.20

Commission ordered a downward adjustment of \$9,873,162, or 10.2 per cent, over the ten-year period.

The largest number of appeals of any one year occurred in 1947 in which 30 appeals were taken to the State Tax Commission (Table 11). Of these 30 appeals 22 originated in King County. It is interesting to note in this connection that, over the ten-year period, 76 of the total of 168 appeals, or 45 per cent, were brought forward from King County. In 1953, although only 24 appeals were made, the assessed valuations under contest were the largest, with \$36,060,558 involved. In con-

equalization from which no appeals were taken thus represented one-half the total.

Adjustments in assessed valuations on a percentage basis were the largest in 1954 (22.41 per cent) and the smallest in 1950 (.09 per cent). Over the ten-year period, appeals from the King County Board of Equalization received the most favorable consideration by the State Tax Commission, with a percentage reduction in assessed valuations of 24.31 per cent. On the other hand, appeals from the Clark, Franklin, Spokane, Thurston, Whatcom, Whitman and Yakima Boards received no reduc-

tions in assessed valuations.

*Assessment Equalization and
Assessment Distortion*

Assumptions which appear to be logical with reference to the county equalization of assessment inequalities are: (1) that counties displaying the largest order of assessment non-uniformity would reveal relatively greater activity by their boards of equalization in assessment adjustments and that this activity would be evident in the number and in the extent of revisions made in assessed valuations; and (2) that property owner appeals to the county boards, both as to the number of petitions and the assessed value of the property under appeal, would be proportionate, in general, to (a) the degree of assessment distortion and (b) the relative height of the average assessment ratio of the county. The higher the average assessment ratio of the county, the larger will be the inequalities in assessments, expressed in dollar terms, with a given degree of assessment non-uniformity.

These assumptions find no support in the functioning of county equalization in Washington for the period 1946 to 1955 inclusive—rather the reverse.

In Table 12 a comparison is shown of county equalization with assessment distortion (as evidenced in the *Study of Real Property Assessments in the State of Washington*). The five counties—Skagit, Ferry, Stevens, Okanogan and Garfield—with the highest coefficients of dispersion, 79.8, 72.2, 72.0, 69.3 and 68.8 per cent respectively, all with mean ratios of assessment in excess of the state average (19.6 per cent), reveal a relatively nominal order of county equalization board assessment adjustments, Skagit and Okanogan Counties excepted, and few taxpayer

appeals. In Ferry and Stevens Counties no adjustments whatever were made in assessed valuations as a result of taxpayer complaints over the ten-year period. In Garfield County there were no taxpayer appeals during this period—the only county in the state in which this occurred. Skagit and Okanogan Counties had 46 and 44 taxpayer appeals, with percentage adjustments in the assessed valuations under dispute of 33.2 and 5.1 per cent respectively. However, in view of the very high coefficients of dispersion, Skagit and Okanogan Counties ranking 1 and 4 in the state, the number of taxpayer appeals and the adjustments made in assessed valuations by the county boards are relatively unimpressive. In Ferry, Stevens and Garfield Counties the evidence indicates that the function of the county boards of equalization to equalize assessment distortions, either on complaint of property owners or on motion of the boards, has been abdicated, with the boards underwriting the continuance of these gross distortions. These counties rank first, third and ninth among the counties of the state in the height of their average ratios of assessment. Property owner inertia, as measured by the number of appeals to these boards, is difficult to understand. It is possible that a condition of hopeless apathy exists among taxpayers because of board and/or assessor attitudes and policies.

The five counties with the lowest coefficients of dispersion are Cowlitz, Thurston, Pierce, Asotin and Walla Walla—coefficients of 39.9, 39.7, 39.2, 38.4 and 32.4 per cent respectively. Walla Walla County, with a mean assessment ratio of 21.7 per cent, is above the state average of 19.6 per cent, while the other four counties fall below the

TABLE 12
COMPARISON OF ASSESSMENT EQUALIZATION WITH ASSESSMENT DISTORTIONS

Equalization of Assessments of Real and Personal Property by County Boards of Equalization, 1946 to 1955 Inclusive				Assessment, Ratios, Assessment Dispersion and Coefficients of Dispersion * (Based on 1953 Assessments and Sales)							
Counties	Number of Appeals	Assessed Value of Property Under Appeal	Adjustment in Assessed Value by Board of Equalization	Per Cent Adjustment in Assessed Value to Total Assessed Value of Property Under Appeal	Per Cent Adjustment in Assessed Value to Total Value of Property Assessed	Sales—Assessment Ratios			Dispersion Range in Assessment Ratios		Coefficient of Dispersion **
						Mean		Median	Low	High	
						19.8%	11.5%				
Skagit	46	\$ 144,275	\$ — 47,935	— 33.225%	— .017%	38.5	23.6	3%	990.0%	79.8%	
Ferry	4	4,290	0	.0	.0	28.3	17.1	1.6	857.1	72.2	
Stevens	4	2,050	0	.0	.0	31.1	20.5	.5	880.0	69.3	
Okanogan	44	493,678	— 25,533	— 5.172	— .015	23.4	14.9	3.8	148.3	68.8	
Garfield	0	0	0	.0	.0	19.5	13.4	2.6	522.0	65.7	
Whatcom	221	537,070	— 64,441	— 11.568	— .016	18.6	12.1	.9	84.0	64.6	
Lincoln	2	62,100	— 100	— .161	— .000	17.1	14.2	.3	157.5	61.6	
Island	42	252,485	— 164,345	— 65.091	— .309	26.5	18.7	.8	508.0	61.5	
Challam	329	14,853,762	— 1,241,263	— 8.357	— .617	20.9	15.4	.3	235.3	60.4	
Douglas	226	785,043	— 162,389	— 20.687	— .149	15.6	11.7	.3	176.0	58.5	
Mason	177	9,827,227	+ 619,527	+ 6.304	+ .536	19.5	16.0	.7	253.8	57.5	
San Juan	136	448,365	— 72,680	— 16.210	— .243	22.1	15.8	.3	141.8	56.6	
Adams	12	87,064	— 15,554	— 17.865	— .013	20.5	14.8	.9	663.2	56.4	
Grays Harbor ..	101	290,966	— 38,715	— 13.306	— .012	28.2	21.8	1.8	211.5	53.2	
Pend Oreille ..	41	176,758	— 1,100	— .622	— .002	21.0	16.4	1.0	125.0	52.9	
Klickitat	56	249,806	— 23,956	— 9.590	— .021	21.2	16.2	1.0	310.5	51.6	
Skamania	31	11,736,352	— 2,270,165	— 19.343	— 5.133	17.7	13.8	.3	136.0	51.3	
Whitman	21	66,470	— 4,900	— 7.372	— .001	24.9	20.4	2.3	230.0	51.2	
Pacific	47	70,084	— 11,747	— 16.761	— .008	18.8	14.9	3.4	136.0	49.9	
Columbia	6	14,870	— 3,560	— 23.941	— .004						

TABLE 12 (Continued)

Equalization of Assessments of Real and Personal Property by County Boards of Equalization, 1946 to 1955 Inclusive						Assessment Ratios, Assessment Dispersion and Coefficients of Dispersion * (Based on 1953 Assessments and Sales)						
Counties	Number of Appeals	Assessed Value of Property Under Appeal	Adjustment in Assessed Value by Board of Equalization	Per Cent Ad- justment in Assessed Value to Total As- sessed Value of Property Under Appeal	Per Cent Ad- justment in Assessed Value to Total Value Property Assessed	Sales— Assessment Ratios		Dispersion Range in Assessment Ratios		Coefficient of Dis- persion **		
						Mean	Median	Low	High			
Jefferson	23	30,305	— 1,360	— 4.488	— .002	21.1	16.5	.5	400.0	48.8		
Yakima	2	10,000	— 200	— 2,000	— .000	16.5	12.9	.4	960.0	48.3		
Franklin	9	61,210	— 4,130	— 6,747	— .004	20.0	16.8	1.0	400.0	47.7		
Wahkiakum ..	4	28,230	0	0	— .0	14.8	12.1	2.0	80.0	47.6		
Chelan	23	227,420	— 40,700	— 17,896	— .014	19.9	17.1	1.2	600.0	47.1		
Kitsap	352	462,370	— 110,856	— 23,976	— .032	23.5	18.4	.6	568.0	46.4		
Lewis	107	321,720	— 45,570	— 14,164	— .012	22.5	19.0	2.0	260.0	44.7		
Clark	19	439,639	— 4,130	— 939	— .001	13.3	8.8	.6	473.3	44.3		
Snohomish ...	228	5,182,123	— 65,680	— 1,267	— .010	18.6	15.3	3.3	610.0	43.3		
Kittitas	66	151,560	— 9,450	— 6,235	— .006	18.4	16.6	.4	90.0	41.3		
Benton	77	604,219	— 78,460	— 12,985	— .042	19.0	17.2	1.1	221.2	40.4		
Spokane	26	558,745	— 19,950	— 3,571	— .001	21.5	19.1	.3	857.1	40.2		
King	648	28,264,450	— 506,020	— 1,790	— .009	17.1	14.6	.4	840.0	40.1		
Grant	12	150,540	— 54,200	— 36,004	— .030	25.0	22.9	.8	600.0	40.0		
Cowlitz	206	52,545,350	— 55,397	— 1,05	— .012	17.8	15.1	1.0	304.7	39.9		
Thurston	61	541,191	— 75,320	— 13,917	— .030	15.3	13.7	.7	106.7	39.7		
Pierce	242	2,131,088	— 211,210	— 9,911	— .015	18.9	17.4	.6	410.8	39.2		
Asotin	30	90,005	— 5,340	— 5,933	— .008	18.3	15.6	1.7	193.0	38.4		
Walla Walla ..	73	818,415	— 111,360	— 13,607	— .030	21.7	19.5	2.8	244.7	32.4		

* Subcommittee on Revenue and Taxation of the Washington State Legislative Council, *op. cit.*, Part 1, Table 3, p. 15.

** Based on average (mean) assessment ratio.

state average, with ratios ranging from 15.3 to 18.9 per cent. Total taxpayer appeals for the ten-year period for these five counties were 612 as compared with 98 for the counties with the highest coefficients of dispersion. Adjustments in assessed value of the property under appeal ranged from a low of .1 per cent for Cowlitz County to a high of approximately 14 per cent for Thurston County. Four of the five county boards of equalization made percentage revisions in the assessed valuation of the property under appeal ranging from approximately 6 to 14 per cent.

It appears from these data (1) that counties having the highest assessment distortions tend to record, in general, the lowest level of activity on the part of their boards of equalization in assessment revision, with adjustments in assessed valuations mal-proportioned to the degree of assessment inequality as measured by their coefficients of dispersion, and (2) that the number of taxpayer appeals and the assessed value of property under appeal, in general, are inverse to the degree of assessment distortion as well as to the relative height of the average ratio of assessment (see Table 3).

State Tax Commission

The principal statutory supervisory powers of the State Tax Commission over county boards of equalization and county assessors have been noted previously. These powers are broad.¹² The Commission is given authority to require the county boards and county assessors to perform their duties as set

forth in the statutes, both substantively and procedurally. The available evidence indicates, however, that this authority has had a very limited expression. The dereliction of county assessors in failing to comply with the uniformity requirement in assessing property and the default of the county boards of equalization on their duty to remove discriminations in assessments apparently have gone unchallenged. The decision of the State Supreme Court in 1932 in the Redd case,¹³ which denied to the Commission the power to reassess and relist property within the counties subject to local assessment for local taxing purposes, was an important restriction—the Commission could no longer proceed *directly* to correct inequitable assessments by a revaluation of property within a county and to substitute its assessed value of such property for that of the county assessor on the tax list.¹⁴ It appears, however, that the Commission has used this decision as a useful rationalization of a policy of non-interference with county assessors and county boards of equali-

¹³ 166 Washington 132 (January 2, 1932).

¹⁴ In the words of the Court "the legislature not possessing such power, the state tax commission (an agency created by the legislature) cannot legally assess property within the limits of a county for county purposes. It follows that the state tax commission is likewise without authority to reassess such property for the same purpose." Further, "if the local authorities only, as we hold, have the power to list and value property within the county for local taxation purposes, no other authorities can legally relist and revalue that property for local taxation purposes." *Ibid.*, p. 147.

As to equalization of assessments by the county boards the Court said "to secure uniformity in taxation, as our constitution requires, it is essential that the valuation of the subjects upon which the tax is levied be uniform. To accomplish this purpose, boards of equalization have been provided, one object of which is to so equalize assessments that no one part of a taxing district will be required to pay more than its proportionate share of a tax." *Ibid.*, p. 145.

¹² Senate Bill No. 371 added to the authority of the Commission over county assessors and increased its responsibility and accountability for the proper performance of the local assessment function.

zation, even though more or less aware of the gross disparities existing in property assessments and the abdication by county boards of their equalization function.¹⁵

It is interesting to note in this connection that the first tax commission of the state, in its first report, called attention to the "deplorable lack of uniformity in assessed values, not only as between different counties in the state but between different classes of property in the same locality."¹⁶ This report stated that under the general property tax "the burdens of taxation are unfairly distributed,"¹⁷ and that "in view of this inequality in assessment throughout the state, this Commission endeavored to bring about a more uniform assessment for the year 1906, and the results, while not satisfactory by any means, have been as good as could

reasonably be expected."¹⁸ In the *Second Biennial Report* (1908) of the Tax Commission, the attention of the governor, the legislature and the public again was called to the gross inequalities existing in property assessment and the urgent need for improvement. In the *Fifth Biennial Report* (1914) the Commission took occasion to declare that "uniformity of assessment within a given county is rarely accomplished and uniformity as between counties is a myth."¹⁹ Assessment inequalities continued to be a matter of virtually continuous concern to the Tax Commissions of the state to 1932, as evidenced by their biennial reports. In the *Biennial Report* of 1928 the Commission emphasized that in the administration of the property tax "the county assessor is charged with duties of paramount importance," that "he is the maker of original assessments," and that "only to the degree he fairly and effectively functions" will equality prevail in the imposition of the property tax.²⁰ The

¹⁵ Citing the Redd case the Commission, in its *Biennial Report* of 1936, states: "However, in the case of properties lying entirely within one county, this power of supervision [over assessments] has been limited by decisions of our state supreme court to the revision, on appeal to the Commission, of the assessments made by local assessors. The Tax Commission can make or control the assessment of only inter-county properties." p. 22. The Commission, in the *Biennial Report* of 1934, comments further: "... all real and personal property entirely situated within a county can be assessed only by the elected county assessor, who is not under the authority of the Tax Commission. The commission acts chiefly in an advisory capacity with respect to these county officials." p. 6. In the same Report the Commission makes the following mild observation, with reference to the gross disparities in local assessments: "In recent years, studies by the commission and independent surveys by other interested groups have indicated that the level of assessment of locally assessed property is considerably lower than that of state assessed property. Also indicated by these studies is a lack of uniformity among counties, and even among similar property in the same county." p. 7.

¹⁶ Washington State Board of Tax Commissioners, *First Biennial Report* (1906), p. 5.

¹⁷ *Ibid.*, p. 12.

¹⁸ *Ibid.*, p. 6. The Commission gave consideration to the salaries of county assessors and found that their remuneration "is entirely inadequate to the amount or character of work demanded. When the extent of injury that can be done both to the county and state, as well as to the person assessed, by a dishonest or incompetent assessor, is taken into consideration, it does seem that, for the purpose of obtaining the best available man for assessor, a more adequate salary should be paid." *Ibid.*, p. 179.

¹⁹ *Op. cit.*, p. 14. After reciting examples of county assessor malpractice and dishonesty in assessing property, the Commission said: "These are instances in direct violation of the constitutional mandate to assess all property at a uniform percentage of its true value. Instances of this kind might be multiplied, but we feel that those cited are sufficient to show the iniquities of a system which not only puts a premium on individual dishonesty but which tends to corrupt public officials as well." *Ibid.*, p. 17.

²⁰ *Op. cit.*, p. 22. The Commission declared that, although "the statutes provide for the equalization of assessments and this theoretically should result in

(See next page)

Special Tax Investigation Commission authorized by the 1929 legislature, in its report to the 1931 legislature, pointed out that great disparities exist in real property assessment in the state. In its *Biennial Report* of 1932 the Commission expressed the view that "no equalization, either by state or county boards, will reach to the basic inequalities that lie in the variations in ratio of assessed to true value that obtain within individual county limits," and that "fundamental equity must be sought through a general statewide reassessment of real property."²¹

Since the issuance of the *Biennial Report* of 1932 comparatively little comment by the Commission regarding the malfunctioning of county assessors and county boards of equalization is to be found in the successive biennial reports. However, the issuance of the *Building Appraisal Manual* in 1936, and its revision in 1952, by the Commission was of importance as an effort to introduce more uniformity in appraisal practice as related to certain improvements to real property. Found in the *Biennial Report* for 1942 is the following statement (with reference to the responsibility of the Commission to investigate and study the tax system of this, and other, states and to recommend to the governor in its biennial report "such amendments, changes and modifications of the revenue laws as seem proper and requisite to remedy injustice and irregularities in taxation, and to facilitate the assessment and collection of public

the curing of incorrect assessments by boards of equalization, practice and experience have proven beyond any question that lack of relative uniformity in the placing of original valuations cannot be effectively remedied by subsequent actions by boards of equalization or review."

²¹ *Op. cit.*, p. 27.

revenue in the most economical manner"): ²² "No recommendations of major importance seem necessary at the time of writing this report. . . ." ²³ This statement was repeated in the *Biennial Reports* of 1944,²⁴ 1946,²⁵ 1948,²⁶ 1952²⁷ and 1954;²⁸ also the substance of this statement, in that no recommendations were made or considered necessary, in the *Biennial Report* of 1950.²⁹

It is difficult to understand why the Commission has not seen fit to recommend a general reassessment of taxable property in the state since 1932. The 1955 legislature, without the recommendations and/or guidance of the Commission, proceeded to take matters into its own hands and ordered the state-wide reassessment. The Commission has long remained silent regarding the inadequacy and failure of the county boards of equalization to equalize assessments. No recommendations have appeared designed to secure improvement in this situation. The supervisory and control authority of the Commission over county assessors was not *entirely* vitiated by the Redd decision; real authority, both direct and indirect, apparently remains, yet the exercise of this authority toward the improvement of assessment practices has had a most limited manifestation.

²² Tax Commission of the State of Washington, *Annotated Code of Property Tax Laws*, *op. cit.*, Sec. 57.

²³ *Ibid.*, p. 10.

²⁴ *Op. cit.*, p. 8.

²⁵ *Op. cit.*, p. 7.

²⁶ *Op. cit.*, p. 5.

²⁷ *Op. cit.*, p. 7.

²⁸ *Op. cit.*, p. 9.

²⁹ *Op. cit.*, p. 5.

Conclusion

County Boards of Equalization. Reference was made earlier to the statutory requirements by which county boards of equalization are governed and the mandate imposed upon them by legislative statute to raise and to lower valuations (assessed) of real and personal property as fixed by the county assessors, either on taxpayer complaint or on their own motion, to the end that each parcel and/or class of property *shall* be given its "true and fair" value in order that "uniformity" in the taxation of property, as required by the State Constitution, be met.

The findings of this survey, in conjunction with the evidence of distortion in real property assessments (*A Study of Real Property Assessments in the State of Washington*), lead to the following conclusions:

(1) Gross distortions in property assessments are undergoing little or no substantive correction by the county boards of equalization.

(2) County boards of equalization have, in effect, abdicated their function of assessment equalization, with such equalization as exists *possibly* resulting in more disparity—rather than greater equalization—of assessments.

(3) The county boards of equalization, in which counties assessment inequalities tend to be the greatest, are, in general, doing the least—instead of the most—to correct discriminatory assessments.

(4) The number of taxpayer appeals to county boards of equalization for adjustment of assessments is not only very small in view of the gross distortions prevailing, but tends, in general, to be in inverse proportion to the dispersion coefficient and the level of as-

sessments for individual counties.

(5) County boards of equalization appear to display, in general, an active disinterest in, and a passive resistance to, the highly important responsibility imposed upon them of equalizing assessments. In substance, they appear to have nullified the tax law of the state relating to property tax equalization without asking the legislature for its repeal.

(6) County boards of equalization, on the basis of the available evidence, have shown little or no interest in ascertaining the existing levels of assessment and coefficients of dispersion as they may obtain for their individual counties. They tend to act without reliable information and thus, to the extent that adjustments in assessments are made, proceed on the basis of questionable benchmarks.

In defense of the county boards of equalization it should be said that they frequently feel defeated by the very mass-size of the problem and that they do not have readily available the basic information required to establish equitable adjustments in assessments. In consequence, they feel compelled to rely upon the information, and misinformation, provided by the county assessor as to the assessment level and assessment distortions. As the task of county assessment equalization is presently constituted, it may be described perhaps as a "part-time job" for a group of public officials who find their principal interests and responsibilities elsewhere. It is possible that the legislature, in placing the function of local assessment equalization upon the county boards, was unaware of the number and size of the gross distortions which occur in the original assessments of property by the county assessors. The equalization task,

of course, in its substantive aspect, is increased or decreased in correspondence with the degree of inequality, or equality, which is present in the original assessments. If original assessments of property were made with a high degree of uniformity, as the law contemplates, the equalization of assessments by the county boards would, of necessity, become largely perfunctory. Members of the county boards of equalization, in their alternate capacities as county commissioners, could do much to reduce the size of the equalization task by providing county assessors with more adequate budgets and by insisting that properly qualified personnel be employed by the assessor in the assessment process. Unfortunately, all too frequently the attitude of county commissioners to the assessors' budgetary requests is one of parsimony and niggardliness.

The state legislature, in the 1955 session, enacted Senate Bill No. 371 which requires a complete revaluation of all locally assessed taxable property by the county assessors on or before June 1, 1958, and every four years thereafter. The legislature has thus made a direct and basic attack on the problem. It is to be hoped that this legislation will result in a major improvement in the quality of original assessments, which currently, and in the past, have been grossly unequal and discriminatory. To the extent that improvement in original assessments occurs, the default by the county boards of equalization on their equalization function will be of less consequence to property owners and the economic welfare of the state.

State Tax Commission. The following conclusions with respect to the functioning of the State Tax Commission in its appellate capacity in assessment equalization, and in its supervisory responsibilities over county boards of equalization and county assessors appear warranted:

(1) The number of taxpayer appeals and the assessed valuation of the property under appeal in comparison with the total assessed and equalized valuation of the 39 counties, per year, or over the ten-year period, indicate that little is accomplished in correcting inequity in local property assessments by the Commission in its appellate capacity.

(2) Of the appeals made, the Commission has found that a substantial proportion, approximately two-thirds over the ten-year period under review, are without merit and must be rejected.

(3) The Commission appears to have displayed little or no concern in the malfunctioning of the county boards of equalization.

(4) Although limited by the Redd decision in its power to correct disparate assessments within the counties, sufficient authority apparently remains under the tax laws of the state to permit the Commission to act in a positive fashion to improve local assessment practices, procedures and results.

(5) The Commission appears to have been remiss in its responsibility to bring to the attention of the governor, the legislature and the public in its biennial reports, or otherwise, the gross abuses existing in the local assessment of property and the failure of county boards of equalization to equalize assessments,

and to recommend appropriate remedial legislation as the tax laws of the state intend and require.

(6) As the property tax operates currently, it may be described only as an instrument of gross discrimination with abuses so substantial, in the words of the 1955 legislature, as "to constitute a grave emergency adversely affecting state and local government and the welfare of all the people."³⁰ The responsibility for this situation rests first

with the county assessors, secondly with the county boards of equalization, and lastly with the State Tax Commission. This taxing instrument, in which is found so much discrimination and oppression, is of major fiscal importance; the aggregate levy for 1956 exceeded \$138 million, which represents some 30 per cent of the estimated total state and local tax revenues for the year.

³⁰ Senate Bill No. 371 enacted in the 1955 session of the Washington legislature.

THE VARIATION OF PROPERTY TAX RATES WITHIN A METROPOLITAN REGION

JULIUS MARGOLIS *

INDUSTRIAL and commercial development of communities often are proposed as a method of reducing the local tax rate. The reasoning is that the property tax levies assessed against the property are higher than the public costs necessary to service the industry or commerce. This paper checks this hypothesis by examining the tax rates among the different types of communities in one metropolitan region. The major conclusion is that the tax rate does not decline with "industrialization."

The area of analysis is the nine counties touching the San Francisco Bay. It contains 72 city governments ranging in size from Colma with a population of 270 to San Francisco with 801,000. They range from cities of less than one-square mile to San Francisco with more than 44 square miles. The 72 cities are supplemented by over 500 other governments—counties, school, and special districts.¹ The proliferation of governments complicates any analysis since the governments are rarely coterminous. Some districts are state-wide, others include all of one county, while still others cover parts of several counties. Some

are coterminous with one city, while still more extend into unincorporated areas. Others will include parts of one or more cities and parts of the unincorporated area.

The overlapping patchwork of governments does not vitiate the analysis in this paper since there is no attempt to discuss specific governments. The research reported on is of the total property taxes paid by property owners in an area to all the local governments which have jurisdiction.

Table 1 shows the fiscal importance of governments by type in the region. The three major governmental units; cities, school districts, and counties are all important fund raising and disbursing units. The locally raised funds are most significant for the following analysis since they are an index of pressures on local property. For this index city governments dominate. The lesser importance of county and school districts reflects a state policy of equalizing support through subventions, which reduce considerably the nonmunicipal pressures for local taxes. When property taxes are considered, the share of the city governments is reduced since they have a wide range of possible tax sources as an option in contrast to the reliance on property taxes by counties and school districts. They therefore

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¹ U. S. Bureau of the Census, *Governments in the United States in 1952*, State and Local Governments Special Studies: No. 31 (Washington, D. C., 1953), p. 23.

can substitute other locally raised revenues for property taxes. Though there is a greater use of nonproperty tax revenues in incorporated areas of the region, this does not mean that the tax rate of that area is lower. On the contrary Table 2 shows that the incorporated tax rate is higher.

Table 2 presents the distribution of tax rates and average tax rates in different areas in the region. The districts

dustrial enclaves include two well-established industrial communities where the daytime work population far exceeds the slight nighttime resident population, a nascent industrial area where this has just become true, and a cemetery city where this is not true.²

The precise classification of the other cities is not as apparent. For each category there are marginal cases which might have been classified differently

TABLE 1
INCOME OF LOCAL GOVERNMENTS IN THE SAN FRANCISCO BAY REGION,
BY TYPE OF GOVERNMENT AND INCOME, 1953-54

	Total Income (thousands)	Locally Raised Income ¹ (thousands)	Property Tax Receipts (thousands)	Total Income (per cent)	Locally Raised Income ¹ (per cent)	Property Tax Receipts (per cent)
Municipalities ^{1, 2}	\$193,586	\$146,861	\$ 88,643	37.8%	47.3%	37.0%
School Districts	174,578	84,607	84,607	34.1	27.2	35.2
Counties ³	127,383	65,429	54,812	24.9	21.1	22.8
Special Districts ⁴	16,249	13,828	11,961	3.2	4.5	5.0
Total	511,796	310,724	240,023	100.0	100.0	100.0

Source: Annual Reports of Financial Transactions for the respective types of governments by the California State Controller for 1953-54.

¹ Government enterprises were not included in income. They were eliminated by including in income only the difference between their receipts and expenditures.

² Service charges were excluded from income.

³ In the above table San Francisco was considered as a city, though the city and county have only one government. If San Francisco's finances were divided between a county and city government in the same ratio as the division in Alameda County, the city per cent of income would fall to 26.0, its per cent of locally raised income to 36.5, and its property tax receipts to 26.0 per cent. The county percentages would rise by an equal amount. Alameda County is most comparable to San Francisco since it includes cities as Oakland and Berkeley. To find the appropriate ratio for Alameda County, it was assumed that Alameda County's urban expenditures were divided between unincorporated areas and cities in proportion to city population.

⁴ Locally raised income is total income less subventions and grants.

of the region are classified into six groups. The 72 cities are divided into five groups based upon the role they play in the region and the total unincorporated area of a county is counted as one observation. The central cities are San Francisco and Oakland, although only San Francisco exhibits all the classic features of a central city. The four in-

by another researcher. The principle classificatory index was the ratio of employment in the city to resident labor force. If the ratio for the city fell between .75 and 1.25 the city was classified as balanced. Below this ratio it was considered a dormitory or bed-

² The cities are Emeryville, Hercules, Milpitas, and Colma, respectively.

room community. Where this type of information was available, the figures were at least five years old, but even these were not always available. This index was supplemented by readings of a land use map of the region, labor market reports of the State Department of Employment, origin and destination studies of the San Francisco Bay Area Transit Commission, and discussions with men who have studied the region intensively. On the basis of all of this information judgment was exercised.³

were classified by the agricultural land uses revealed in the land use map and the dominance of local traffic indicated in the origin and destination studies.⁴

The sources of data for the taxable property values and property tax levies were the respective county assessor and auditor offices. Many of the cities are divided into many tax districts because of the overlap of local governments. For instance, the city of Hayward contained 30 tax assessment districts with different rates. We therefore summed

TABLE 2
DISTRIBUTION OF TAX RATES AND AVERAGE TAX RATES ON PROPERTY IN
AREAS WITHIN THE SAN FRANCISCO BAY AREA, 1954-55

Tax Levies per \$100 of True Value of Tax- able Property	Areas				
	Cities			Non-Metro- politan	Unincorpor- ated Remainder of Counties
	Central	Balanced	Dormitories		
\$1.00-\$1.09				1	1
1.10- 1.19				1	2
1.20- 1.29				3	
1.30- 1.39		2	2	1	2
1.40- 1.49		2	8	1	
1.50- 1.59		4	7	3	
1.60- 1.69	1	4	4	0	1
1.70- 1.79		0	2	1	2
1.80- 1.89	1	1	2	2	
1.90- 1.99		0	2	2	
2.00- 2.09		0	6	1	
2.10- 2.19		1	0	0	
2.20- 2.29			1	0	
2.30- 2.39			1	0	
Mean Tax Rate	1.78	1.59	1.61	1.12	1.40

The nonmetropolitan cities are in the outlying areas which are not closely linked with the central cities. They

³ The balanced cities are: Alameda, Berkeley, Hayward, San Leandro, Antioch, Martinez, Pittsburg, Richmond, San Rafael, Redwood City, South San Francisco, Palo Alto, San Jose and Vallejo. The dormitory cities are: Albany, Livermore, Piedmont, Pleasanton, Brentwood, Concord, El Cerrito, Pinole, San Pablo, Walnut Creek, Belvedere, Corte Madera, Fairfax, Larkspur, Mill Valley, Ross, San Anselmo, Sausalito, Atherton, Belmont, Burlingame, Daly City, Hillsborough, Menlo Park, Millbrae, San Bruno, San Carlos, San Mateo, Campbell, Los Altos, Los Gatos, Mountain View, Santa Clara, Sunnyvale, and Benicia.

the levies of all the assessment districts for each city to determine the total levy on property within the city. The levies for the unincorporated area were determined as a residual. The sum of the levies within the cities was subtracted from the total of the levies for the county, as reported by the State Board

⁴ The nonmetropolitan cities are: Calistoga, Napa, St. Helena, Alviso, Gilroy, Morgan Hill, Dixon, Fairfield, Rio Vista, Suisun, Vacaville, Cloverdale, Healdsburg, Petaluma, Santa Rosa, Sebastopol and Sonoma.

of Equalization, to find the levies on property in unincorporated areas.⁵

The true values of taxable property were estimated by adjusting the assessed values net of exemptions by the ratio of assessed to appraised values, as estimated by the State Board of Equalization in a special survey taken in 1954.⁶ The ratio of assessed to appraised value was not estimated for each city. The smallness of the sample only permitted reliable estimates to be made for units as large as counties. The assumption was made that the ratios applicable for the county were also applicable for each city within the county.⁷

The mean tax rates given at the foot of the table are the ratio of the sums of the levies on property in all the cities in each group to the sum of the taxable property in that group. The means are not the average of city averages.

There are two striking findings in this table. First is the distribution of average tax rates by type of area. The lowest tax rates are found among the industrial enclaves. This is to be expected since the ratio of taxable values to population requiring public services is very high. The next lowest rates are found in the nonmetropolitan cities falling in the rural hinterland of the region. The low density of settlement of these areas gives them the highest

(next to the industrial enclaves) taxable property per capita, while their lower levels of public services put less pressure on the tax base. The result is that their tax rates are appreciably lower than the metropolitan cities. The rates of the unincorporated areas are distinctly lower than the rates for the metropolitan cities. It is difficult to draw any conclusions for this group since each observation is for a conglomerate area containing land uses which range from forest-range lands to densely settled tracts. The highest rates are levied in the central cities, while the balanced and dormitory cities have almost the same rates.

The similarity of the tax rates for dormitory and balanced cities raises doubts about the validity of a policy of "industrialization" in order to reduce property tax rates. These conclusions need not be surprising if consideration is given to the many changes which may occur in a city with increasing industrialization. A plant or a shopping center rarely will be isolated from the remaining land uses. The expansion of industrial and commercial land uses will have consequences for residential densities, the income levels of the residents to be attracted, and the levels and patterns of public service. The final effect of the attraction of industry may not lead to the reduction of tax rates. In the case of the San Francisco Bay area industrialization does not mean lower tax rates.

These findings do not mean that industrialization should not be encouraged. The advantages of economic growth to an area are not disputed. The increase in jobs and incomes for a region is certainly a desirable goal. If the industry of the region had not

⁵ California State Board of Equalization, *Annual Report*, 1954-55, p. 67. Since the city of San Francisco is coterminous with the county, there are only eight counties with an unincorporated area.

⁶ California State Board of Equalization, *Inter-county Equalization in California*, July 18, 1955 (mimeo.) and special tabulations provided by the Board.

⁷ For a discussion of assessment practices in California, see California State Interim Committee on State and Local Taxation, *Property Assessments and Equalization in California*, Sacramento, March, 1953.

grown and the residents had attempted to achieve their current level of public services, the resultant tax rates would have been much greater. The conclusions of the study only refer to the distribution of tax rates in an area where jobs, sales, and homes are distributed in different proportions among the many areas comprising a metropolitan region.

The second striking finding is the

great variation in rates among the cities of the region. Unfortunately an attempt at an explanation of this variation is beyond the scope of this paper. It would necessitate an examination of the expenditure and tax patterns of each level of government, since the property tax levies represent the differences between the expenditures of all the local governments and the sums of all their other sources of revenues.

THE ROLE OF PROPERTY TAX IN WISCONSIN SINCE 1929

CLARA PENNIMAN *

THIS article may be considered a case study in "The Decline of the General Property Tax," an earlier article by Professor Mabel Newcomer which discusses the property tax for the United States as a whole.¹ In her discussion, Miss Newcomer analysed the general national reduction in emphasis on the property tax in the years since 1932, when the property tax reached its peak. The analysis brought out the declining role of this tax in relation to wealth and income and as a portion of total national, state, and local revenues and state-local revenues alone. The present discussion analyzes in slightly different terms the declining role of the property tax since 1929 in one state—Wisconsin. The findings in general substantiate and possibly reinforce those of the earlier study.

A rounded analysis of property tax trends in any given state requires, as its point of departure, not only information on the total of property tax collections for a series of years but also information on the total value of property, the total value of property taxed, and a reasonably accurate average tax rate for the state as a whole and for its

cities, villages, and rural areas for the same period of years. To the writer's knowledge, it is not possible to secure full information on the total value of property for any state. For most states, data on the total value of property taxed and average tax rates are unobtainable. But in Wisconsin, since 1904, the State Tax Department regularly has compared local tax assessments to sale prices and converted local assessments to "full value assessments" and local property tax rates to "full value rates."² These data provide the in-

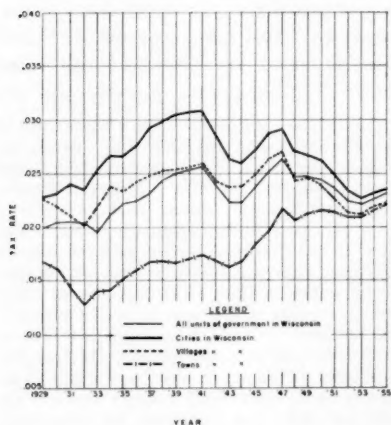
² Most states make some attempt at equalization of property assessments. But Wisconsin's system has been the most successful in providing comparable overall values and tax rates for all taxing units. Under the Wisconsin system, local governmental taxing units carry on their property assessment activities with little interference from the state. Parallel with local assessing, however, assessors of the state tax department regularly check local assessed values with sales prices of the same or similar properties and determine the ratio of property assessment to "full value" (usually sales value). The State Tax Department for its own purposes then establishes revised tax rates and property values—"equalized full value tax rates" and "equalized full value assessments." The state taxes utility property through the use of an average full value tax rate and distributes some local grants-in-aid on a formula which includes the "equalized full value" of the community's property as a factor. The state itself has levied only .2 of a mill general property tax since 1933. With fewer local pressure, the state property tax division, currently employing 36 individuals, is relatively free to operate as a technical unit. The division attempts within each six year period to review assessments and sales records of all taxed property in the state.

* The author is an Assistant Professor of Political Science at the University of Wisconsin.

¹ Mabel Newcomer, "The Decline of the General Property Tax," *National Tax Journal*, Vol. VI, No. 1, March, 1953.

vestigator with a reasonably accurate measurement of the tax burden which taxed property has borne in each year in the state as a whole and in its political subdivisions. "Full value assessments" do not, of course, equal state wealth. There are many exemptions of property (particularly personal) from taxation, and the kind and amount of these exemptions have varied from year to year—or at least from legislative session to legislative session. The state's attempt at full value appraisal necessarily contains a lag in adjustment and is subject to variations in human judgment.³

CHART 1
TRENDS IN AVERAGE FULL VALUE PROPERTY
TAX RATES IN WISCONSIN



With this background, then, the author proposes to examine the trend in Wisconsin's use of the property tax from 1929 through 1955. Three major measures of the use of the property tax will

be considered: 1) property tax rates and taxed property values for all governments in Wisconsin and for cities, villages, and towns; 2) The ratio of property tax collections to total state and local tax collections; 3) The ratio of property tax to state income. As a further consideration of the "plight" of local governmental units, the ratio of aids and shared taxes to local property taxes will be examined.

Wisconsin Property Tax Rates, 1929-1955

Tables 1, 2, 3, and 4 present the full-value tax rates and the full value of *taxed* property for Wisconsin cities, villages, towns and the state as a whole for each year from 1929 through 1955.⁴ Chart 1 shows graphically the relative trends in the full value tax rates for the years 1929 through 1955, for the state and its political subdivisions. The "full value of property taxed" presumably reflects changes in market value of property and both increases and decreases in total taxed property in existence. "Property taxed" in Wisconsin throughout this period excluded intangible property; it has also excluded an ever lengthening list of tangible personal property and some real property. A particular city's, village's, or town's property tax rate (even adjusted to the equalized property rate) might, of course, vary greatly from the state average for its own class.

The tables and chart suggest several conclusions. The full value of all property taxed in the state did not reach the 1929 high of \$6 billion again until

³ There is evidence, for example, that the Wisconsin Tax Department did not believe property values at the end of World War II were more than a temporary phenomenon and that the assessors delayed a couple of years before shifting assessments to the higher level of sales prices.

⁴ The reader is reminded that the "town" in Wisconsin means rural, unincorporated areas. Thus town property is largely rural. State, county, school, and special district tax levies as well as the specific town, village, or city taxes are included in the town, village, or city figures.

1947; but in the next five years, by 1952, the full value of property taxed had doubled. The full value of property taxed in the state in 1955 was \$14 billion in contrast to the \$6 billion of 1929. In the same years of 1929 to 1955, the full value of property taxed in Wisconsin cities increased about 270 per cent; trebled in Wisconsin villages; and increased only 150 per cent in Wisconsin towns.

The most striking characteristic of the average full value tax rate for the

1929 average full value tax rate by 3.1 mills.

City and village full value tax rates show a somewhat similar pattern to the state average, but the difference of 8.3 mills between the high and low city rates substantially exceeded the differences between the high and low points for the state as a whole and for the villages of the state. City rates were considerably above the state average in the earlier part of the twenty-five year period. Cities reached their peak aver-

TABLE 1
PROPERTY TAXES IN WISCONSIN FOR ALL UNITS OF GOVERNMENT

Year	Average Full Value Tax Rate	Full Value of Property Taxed (billions)	Year	Average Full Value Tax Rate	Full Value of Property Taxed (billions)
1929	\$.0200	\$ 6.0	1943	\$.0223	\$ 4.8
1930	.0204	5.9	1944	.0223	5.0
1931	.0205	5.3	1945	.0237	5.3
1932	.0203	4.8	1946	.0251	5.8
1933	.0195	4.3	1947	.0262	6.5
1934	.0212	4.1	1948	.0246	7.9
1935	.0221	4.2	1949	.0247	8.5
1936	.0223	4.3	1950	.0245	9.2
1937	.0232	4.4	1951	.0236	10.4
1938	.0244	4.4	1952	.0224	12.0
1939	.0250	4.4	1953	.0220	12.8
1940	.0253	4.4	1954	.0226	13.2
1941	.0257	4.4	1955	.0231	14.0
1942	.0238	4.6			

Figures taken from appropriate annual bulletins presently entitled *Property Tax*, published by Wisconsin Department of Taxation and from letter to the writer dated July 6, 1956 from Forrest W. Gillett, Director Property Tax Division.

state as a whole is its stability. A fairly steady climb in the average full value tax rate from 1929 to 1941 produced an increase of only 5.7 mills. Following 1941, the average full value tax rate dropped 2 mills in one year, climbed to a high of \$.0262 in 1947, and again dropped for several years reaching \$.0220 in 1953. This 1953 mill rate was the lowest average full value tax rate in Wisconsin in any year since 1934. The state's average full value tax rate of \$.0231 in 1955 exceeded the

age rate in 1941 with \$.0309, showed another peak in 1947 of \$.0291, then dropped rather steadily through 1953 with an average full value tax rate in that year of \$.0226, the lowest rate in the whole twenty-five year period for the state's cities. The years 1954 and 1955 again showed a rise. The low point of village tax rates occurred in 1932 with a rate of \$.0202, but in 1953 village tax rate was only 1 mill higher. The increases in 1954 and 1955 produced a village rate of \$.0223, only

2.1 mills above the 1932 rate.

Town rates begin in 1929, 6.1 mills below city rates of the same year (\$.0167 and \$.0228). By 1937, town rates were 12.6 mills below city rates, but a steady climb in town rates occurred in succeeding years. In 1955, the average full value town tax rate was \$.0221, only 1.5 mills below the city rate of \$.0236. Village rates in 1955 stood at \$.0223, and the average rate for all governmental units in the state stood at \$.0231.

cent in the same ten year period. If urban and rural expenditures increased at the same general rate (and available evidence suggests this is a reasonable hypothesis), then the lesser rise in rural property values would result in a greater increase in town property tax rates than in urban rates. Moreover, the legislature through property exemptions over the years may have disproportionately eroded the rural tax base in contrast to rural and urban tax bases in 1929. On the expenditure side, education is the

TABLE 2
PROPERTY TAXES IN WISCONSIN CITIES

Year	Average Full Value Tax Rate	Full Value of Property Taxed (billions)	Year	Average Full Value Tax Rate	Full Value of Property Taxed (billions)
1929	\$.0228	\$ 3.3	1943	\$.0263	\$ 2.7
1930	.0232	3.3	1944	.0259	2.8
1931	.0240	3.0	1945	.0272	3.
1932	.0234	2.8	1946	.0286	3.2
1933	.0253	2.5	1947	.0291	3.7
1934	.0267	2.4	1948	.0271	4.5
1935	.0266	2.4	1949	.0267	4.9
1936	.0277	2.4	1950	.0263	5.4
1937	.0293	2.5	1951	.0250	6.2
1938	.0299	2.5	1952	.0234	7.3
1939	.0303	2.5	1953	.0226	8.
1940	.0307	2.4	1954	.0232	8.4
1941	.0309	2.5	1955	.0236	8.9
1942	.0284	2.6			

Figures taken from appropriate annual bulletins presently entitled *City Taxes*, published by Wisconsin Department of Taxation and from letter to the writer dated July 6, 1956 from Forrest W. Gillett, Director Property Tax Division.

Perhaps the greatest single factor accounting for the sharp increase in town rates as compared to city and village rates relates to the relatively smaller increase in town taxed property values. Taxed city property multiplied in value, either from increases in the amount of taxed property or the value of taxed property, 278 per cent from 1946 to 1955; taxed village property showed a 300 per cent increase; but taxed town properties increased only by 177 per

cent in the same ten year period. If urban and rural expenditures increased at the same general rate (and available evidence suggests this is a reasonable hypothesis), then the lesser rise in rural property values would result in a greater increase in town property tax rates than in urban rates. Moreover, the legislature through property exemptions over the years may have disproportionately eroded the rural tax base in contrast to rural and urban tax bases in 1929. On the expenditure side, education is the

Property Taxes in the State and Local Tax System

In 1929, although Wisconsin had a state income tax, property taxes still made up 68.0 per cent of all state and

local taxes—a decline from 1910 (the year before the state adopted its income tax) and 1920 when the ratios were 86.3 and 72.9 per cent, respectively. Following 1929, property taxes as a per cent of total state and local taxes declined rather steadily until 1944, when the ratio reached an all time low of 39.8 per cent. Subsequently, the ratio of property taxes to total taxes rose. The figure of 51.7 per cent for 1955 represents the highest property tax ratio to total taxes for the state and its political

erty taxes raised. With a few downward moves, this ratio of grants-in-aids and shared taxes to property taxes climbed to a high of 71.4 per cent in 1944. Thereafter, local disbursements (hence property taxes) have climbed proportionately more rapidly than have the state shared taxes and the national and state grants-in-aid. But in 1955, the state and national governments still provided shared taxes and grants-in-aid amounting to 56.8 per cent of the property taxes—more than \$.56 for each dol-

TABLE 3
PROPERTY TAXES IN WISCONSIN VILLAGES

Year	Average Full Value Tax Rate	Full Value of Property Taxed (billions)	Year	Average Full Value Tax Rate	Full Value of Property Taxed (billions)
1929	\$.0226	\$.4	1943	\$.0237	\$.3
1930	.0219	.4	1944	.0238	.3
1931	.0210	.3	1945	.0250	.4
1932	.0202	.3	1946	.0264	.4
1933	.0218	.3	1947	.0269	.5
1934	.0238	.3	1948	.0243	.6
1935	.0233	.3	1949	.0246	.6
1936	.0246	.3	1950	.0239	.7
1937	.0249	.3	1951	.0226	.8
1938	.0252	.3	1952	.0214	1.0
1939	.0253	.3	1953	.0212	1.
1940	.0256	.3	1954	.0218	1.1
1941	.0259	.3	1955	.0223	1.2
1942	.0242	.3			

Figures taken from appropriate annual bulletins presently entitled *Village Taxes*, published by Wisconsin Department of Taxation and from letter to the writer dated July 6, 1956 from Forrest W. Gillett, Director Property Tax Division.

subdivisions since 1940.

Table 5 also indicates the changing proportion of shared taxes and aids received by local governmental units as a ratio of local property taxes. In 1929, before the development of major national and state grant-in-aid programs and before the growth of national income in the 1940's expanded local shares of the state income tax, local receipts of grants-in-aid and shared taxes represented only 30.5 per cent of total prop-

lar of property tax. This represented almost a doubling of the 1929 percentage. In 1955, state shared taxes alone amounted to \$.26 for each property tax dollar. This \$.26 on the dollar was available for any local use desired. While the grant-in-aid money (\$.30 for each property tax dollar) was available only for particular purposes and with some conditions, nevertheless, local governments had some policy control over such expenditures.

Property Taxes and Income

As one measure of ability to pay, Table 6 shows *per capita* property taxes in Wisconsin from 1929 through 1955, and the ratio of these taxes to *per capita* income. The high point of property taxes relative to income was in 1932, when property taxes reached 10.2 per cent of personal income. An almost continuous decline followed until 1945, when property taxes in Wisconsin represented a ratio to income of only 2.9 per cent. Thereafter, the per capita

either the higher income groups or in the lower income groups. As previously shown in Table 1 and the accompanying discussion, the average full value tax rate in 1955 was 3.1 mills more than the rate in 1929; but the 1955 rate represented a decline from earlier highs. This trend of the average full value tax rate in Wisconsin provides an indication of the burden of taxes on property taxed, but is an inferior measure of collective ability to pay these taxes in comparison with the relation of property taxes to income.

TABLE 4
PROPERTY TAXES IN WISCONSIN TOWNS

Year	Average Full Value Tax Rate	Full Value of Property Taxed (billions)	Year	Average Full Value Tax Rate	Full Value of Property Taxed (billions)
1929	\$.0167	\$ 2.3	1943	\$.0162	\$ 1.8
1930	.0160	2.2	1944	.0168	1.9
1931	.0143	1.9	1945	.0184	2.
1932	.0128	1.7	1946	.0196	2.2
1933	.0141	1.5	1947	.0216	2.4
1934	.0143	1.5	1948	.0205	2.8
1935	.0151	1.5	1949	.0213	2.9
1936	.0159	1.5	1950	.0216	3.1
1937	.0167	1.6	1951	.0214	3.4
1938	.0168	1.6	1952	.0209	3.7
1939	.0166	1.6	1953	.0210	3.8
1940	.0169	1.6	1954	.0216	3.8
1941	.0176	1.6	1955	.0221	3.9
1942	.0168	1.7			

Figures taken from appropriate annual bulletins presently entitled *Town Taxes*, published by Wisconsin Department of Taxation and from letter to the writer dated July 6, 1956 from Forrest W. Gillett, Director Property Tax Division.

property tax ratio to per capita income has risen slightly in most years to a high of 4.9 per cent in 1955. The 1955 ratio was still 1.4 percentage points lower, or approximately 25 per cent less, than the 1929 ratio.

Without additional knowledge of the income and property distribution in Wisconsin, it is not possible to conclude whether this average per capita reduction in property tax burden has benefitted the majority of taxpayers equally or has been concentrated in

The reduction of more than one percentage point in the ratio of the property tax to income in Wisconsin reflected proportionately less use of the property tax and not a general reduction in total state and local taxes. Wisconsin's ratio of per capita state and local taxes to per capita income was at about the same level in 1955 (9.6 per cent) as in 1929 (9.2 per cent). The highest ratio of state and local taxes to income occurred in 1932 with 16.5 per cent. In 1946 total state and local taxes

had dropped to 6.9 per cent of income—a low for the period since 1929.

taxpayers generally are better able to pay the property tax today than in

TABLE 5

PROPERTY TAXES IN THE STATE AND LOCAL TAX SYSTEMS

Year	Property Taxes as Ratio of State and Local Taxes *	Shared Taxes & Aids as Ratio of Local Property Taxes †
1929	68.04%	30.50%
1930	66.43	31.53
1931	65.81	32.08
1932	61.49	42.04
1933	59.95	42.10
1934	59.84	40.49
1935	60.64	39.08
1936	57.88	48.18
1937	55.87	49.59
1938	56.91	48.77
1939	55.01	47.32
1940	53.59	50.83
1941	51.19	52.61
1942	48.03	60.64
1943	44.45	65.66
1944	39.77	71.40
1945	41.63	64.59
1946	46.90	56.78
1947	48.95	54.72
1948	47.53	57.45
1949	49.59	55.18
1950	49.93	52.38
1951	48.04	57.98
1952	49.17	59.17
1953	50.04	58.87
1954	50.57	58.62
1955	51.66	56.80

* Calculated from data on total state and local taxes and total property taxes as reported in *Tax Commission Bulletins*, Nos. 76 and 85, dated August, 1935 and October, 1938, respectively, for the years 1929 through 1938 and as reported in *Bulletins of the Wisconsin Tax Department*, Nos. 92, 98, 104, 111, 116, 124, 137, 142, 151, 156, 160, 165, 169, 173, and 555, issued in most years in the October following the end of the June fiscal year.

† Calculated from data on shared taxes and aids in same *Bulletins* cited in preceding footnote. Shared taxes and aids are reported in terms of the June 30 fiscal year just as are the property tax collections. Property tax collections for the state have been deducted.

Summary

Should the general property taxpayer in Wisconsin be told his complaints are unreasonable? Income-wise Wisconsin

TABLE 6

PER CAPITA PROPERTY TAXES AS RATIOS OF PER CAPITA INCOME

Year	Per Capita Property Taxes	Ratio of Per Capita Property Taxes to Per Capita Income
1929	\$42.73	6.27%
1930	42.17	7.09
1931	41.69	8.80
1932	36.83	10.19
1933	32.52	9.68
1934	31.14	8.19
1935	30.50	6.59
1936	31.33	6.04
1937	33.00	5.97
1938	35.43	6.92
1939	36.93	7.14
1940	35.39	6.39
1941	35.48	5.26
1942	36.52	4.19
1943	35.52	3.37
1944	34.61	3.10
1945	34.46	2.91
1946	38.92	3.22
1947	45.02	3.48
1948	52.68	3.76
1949	59.88	4.40
1950	61.59	4.22
1951	66.35	3.92
1952	72.44	4.20
1953	78.94	4.48
1954	82.82	4.85
1955	88.18	4.91

This table has been calculated as follows: Total property tax collections in Wisconsin as reported by the Tax Department in its appropriate *Bulletins* (See Table 5) were divided by the census population for Wisconsin. The decennial census figures were used, but from the sixth year of each census (1925, 1935, 1945) one-half of the ten-year increase in population was added to the divisor. Per Capita income figures used were those reported in *Survey of Current Business*, U.S. Department of Commerce, Office of Business Economics, Sept., 1955, Vol. 35, No. 9, Table 2, pp. 16, 17, and August, 1956, Vol. 36, No. 8, Table 1, p. 10.

many years of the past. Government is providing more services and charging proportionately fewer of them to the property tax. The property taxpayer,

however, may still ask whether the collective decrease in the burden of the property tax in relation to income has decreased its burden for *him* or even for the larger number of taxpayers. He too often can complain also of local inequities in the administration of the property tax and of too many statewide exemptions from the property tax base.

Moreover, despite the general taxpayer outcry that property taxes have reached an absolute ceiling, analysis reveals: that "full value" property tax rates in Wisconsin today are only slightly (3.1 mills) above the 1929 rate; that today's rate is lower than for a majority of the years following 1929; that property taxes in the last decade have made up a lesser proportion of state and local taxes than in 1929 or the 1930's; and that total property taxes are about 25 per cent lower in proportion to income in 1955 than in 1929. City taxes in 1955 were only .8 mill above the full value tax rate in Wisconsin in 1929; village taxes, .3 mill lower; but town (rural) tax rates have climbed 5.4 mills between 1929 and 1955.

Average full value property tax rates have shown lesser variations than have

the state's personal income tax rates in the same years.⁵ Even the apparent flexibility of property tax rates in Wisconsin results more often from differences in the amount and value of property taxed than from annual changes in mill rates levied by the governmental taxing body. Individuals in particular communities frequently paid the same property taxes for several years in succession.

If the local citizen wishes a continuing level, or more often an increasing standard, of local services, he must expect to pay. With state shared taxes and aids totalling more than 50 per cent of local property taxes, local fiscal responsibility requires the development of a new local tax source, the transfer of functions to a higher level of government, or the continuance of property as the major productive local tax source.

⁵ Although the basic rate structure for income taxes in Wisconsin has remained almost constant, surtaxes of 60 per cent were levied on incomes earned in the years 1935 through 1942; 25 per cent, on incomes earned in 1949 and 1950; and 20 per cent, on incomes earned in 1955 and 1956. A privilege dividend tax constituted a special addition to the income tax from 1935 through 1951, and a special emergency, relief surtax applied to incomes for the years 1931 through 1934.

THE INCIDENCE OF PUBLIC DEBT OPERATIONS

EARL R. ROLPH *

THE purpose of this study is to ascertain the effects of government operations in its own debt on the behavior of private groups. If the analysis is valid, the ideas should be applicable to a variety of countries with diverse financial structures. The institutional requirements are the presence of an organized secondary market for government securities to which anyone is permitted to have access, a central bank, and a positive desire by persons and private organizations to hold and to issue debt instruments. Some or all of these requirements exclude a number of countries in the contemporary scene, such as Iran, Arabia, the U.S.S.R., Afghanistan, and several Latin American countries. The number of countries satisfying these conditions was relatively small prior to 1914.

Government operations in its own debt will be shown to have an incidence on private groups in much the same sense that a tax or a subsidy may be said to have an incidence. The term "incidence" is used to cover two ideas: the financial burden or its opposite of a government fiscal operation, and the distribution of this burden or its opposite among persons and private organizations. Financial burden means a net reduction in the asset position of private groups viewed at a given date in time or

a net reduction in the money gain of private groups viewed over a period of time. The financial burden or its opposite resulting from a government fiscal operation may or may not imply a "real" burden on private groups or a "real" gain to private groups, depending upon the accompanying changes in prices.¹

A flat-sum tax or a flat-sum subsidy offers the simplest illustration of incidence. Such devices have a zero marginal rate of tax or gain with respect to any activity under the control of those selected to pay or to receive the money. Their only effects are those resulting from some people having less or more money. The incidence of such devices can in principle be discovered by the empirical procedure of observing the identity of those subject to the tax or the subsidy and then comparing wealth patterns of members of the group with and without the tax or subsidy. The equivalent ideas applied to debt operations by a government require the identification of those who

¹ Some fiscal students define incidence in "real" terms. A recent defense of this point of view is given by Richard A. Musgrave, "On Incidence," *Journal of Political Economy*, LXI (August, 1953), 306. Logically such a view implies that subsidies provide a "real" gain to private groups. Actually no such implication could be intended because it leads to the impossible result that the standard of living of people in a society could be raised indefinitely by sufficiently large money subsidies. Behind these definitional issues is a methodological question of some importance.

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experience gains or losses on balance and the determination of the amount of such gains or losses. It may not be intuitively obvious that government debt operations have an incidence in this sense.

The topic as thus defined presupposes that it is meaningful and important to ascertain the effects of government debt operations as such. This approach has not by any means gained general acceptance. A more frequently adopted line of thought treats the effects of a particular fiscal act as the joint effects of it and another or many other fiscal acts. In the area of tax analysis, this position means that the effects of some tax are to be identified with both those of the tax itself and the expenditures by the government of the proceeds. In the area of government debt operations, the effects of government purchases or sales of its own debt are grouped together with the effects of a budget surplus or deficit. This approach permeates the very language of fiscal policy. The term "deficit financing" has come to be regarded as synonymous with "debt financing". It is taken for granted that the effects of debt operations are to include the effects of budget deficits or surpluses.²

² This practice of identifying the effects of deficits with debt increases may arise from the supposition that there are only two ways that a government can finance itself, by taxation or by borrowing (see, for example, Alvin H. Hansen, *Monetary Theory and Fiscal Policy* [New York: McGraw Hill, 1949], p. 167). There appears, thus, to be a necessary balance in the government's total budget, when the total budget includes the outlays for purchase or repayment of debt on the expenditure side and receipts from debt sales on the revenue side. Empirically this doctrine is incorrect; it is not even correct for household budgets. Indeed, for short periods of time, it is most unlikely that many budgeting units would precisely balance their budgets in this sense. The variable omitted for a person is his cash balance, and the variables omitted for a sovereign government are its cash balance and its power to create money.

An alternative technique for analyzing fiscal operations calls for distinguishing among various types of government financial actions and of attempting to discover the effects of each type. The effects of some tax mean the difference that tax makes, not the difference which that tax and some government expenditure make. The effects of a debt operation mean the difference that particular debt operation makes; not the difference which a government deficit and the sale of debt make. This method happens to be orthodox as well as ultra-modern; it is the method of functional finance.³

The rationale of this method is clarity—to say what one means. If the topic to be considered is the effects of a progressive individual income tax and the analysis includes the effects both of this tax and of some pattern of government expenditures, confusion rather than clarity is the result. When the topic under discussion is debt management,

Inattention to these sources of government financial freedom may explain why some students turn a plea for the desirability of deficits into a plea for increasing the public debt (for example, see Seymour E. Harris, *The National Debt and the New Economics* [New York: McGraw Hill, 1947]). Keynes' influence may help to account for the popularity of the identification of deficits with debt financing (see *The General Theory of Employment Interest and Money* [New York: Harcourt, Brace and Co., 1936], pp. 96, 128-129).

³ Pigou employs, but does not to my knowledge explicitly defend, the technique of separately considering each type of government operation. Edgeworth who was explicit (see *Papers Relating to Political Economy*, Vol. II [London: Macmillan, 1925], p. 70) addressed his remarks to those of his day who insisted that the effects of taxes should be conjoined with the effects of the expenditures. A. P. Lerner's functional-finance approach follows the neoclassical method of analysis; its unorthodoxy results from the value judgments employed rather than from any fundamental departure from the neoclassical method of analysis in this area. See A. P. Lerner, "An Integrated Full Employment Policy," *International Postwar Problems*, Vol. III (January, 1946), pp. 69-129.

it is equally objectionable to include what are deemed to be the effects of budget deficits or surpluses as well as an increase or decrease in the public debt. As an example, consider the proposition that a government deficit and the sale of an equal amount of public debt are inflationary, meaning by "inflationary" that aggregate expenditures for goods and services increase over time. Such a proposition implies that there are unique stimulating effects of a deficit of a given size. Yet there are infinite combinations of government expenditures, transfer payments, and taxes that can give a deficit of given size. We are asked to believe that every such combination has identical effects with respect to private expenditures for goods and services. If this is so, it has yet to be demonstrated. The trouble here is in speaking of the effects of a deficit at all. A deficit is an arithmetical difference between two totals; it is not a government fiscal act. The acts in question are particular government expenditures, particular subsidy formulas, and particular tax formulas. When the effects of each of these have been determined, there is nothing left over to be ascribed to the arithmetical difference between two totals. In addition, when the effects of a particular pattern of budgetary operations of a government have been determined, the effects of the pattern of debt operations remain to be investigated. Before it may properly be concluded that the sale of a certain amount of debt is less *deflationary* than all other budgetary operations taken together, some explanation is required to show how sales of government debt affect private demands for products and to indicate their quantitative significance.

In this discussion, the effects of national debt operations refer to official actions designed to increase or decrease the amount of public debt in private hands regardless of other fiscal actions that may be pursued contemporaneously. The aim is the limited one of discovering the incidence of official debt policies, not the global one of discovering the effects of an entire set of budgetary acts together with debt operations. Official policies include central bank measures as well as treasury-initiated debt operations.⁴ The manner by which particular decisions are reached and implemented, whether by a treasury or a central bank or both, are details of no immediate relevance to the present discussion.

I. *The Pure Liquidity Case*

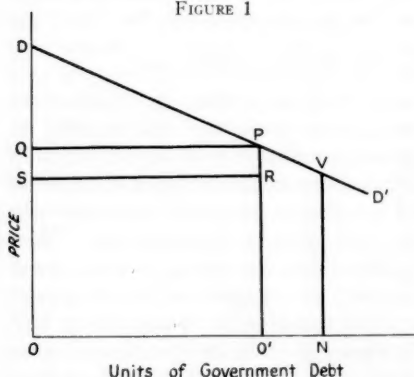
Consider a setting in which there is a given amount of public debt in private hands. It is convenient to think of this debt as homogeneous in the form of promises to pay one unit of currency per unit of time in perpetuity. There exists at any given date some demand schedule on the part of private groups to hold this debt, as represented by DD' in Figure 1. The horizontal axis represents units of debt as already defined and the vertical axis represents price. The rate of interest per period is i/P , where i is one unit of debt, as defined, and P is the price of that unit.⁵

⁴ M. A. Kriz has surveyed a number of countries to learn the relation between central banks and other agencies of government. (See his paper "Central Banks and the State Today," *American Economic Review*, XXVIII [September, 1948], 565-580.) Few will be surprised to learn that central banks have now become in fact instruments of government financial policy.

⁵ The method of treating debt as a commodity has been employed to good effect by R. W. Clower, "Productivity, Thrift, and the Rate of Interest," *Economic Journal*, LXIV (March, 1954), 108.

Before proceeding with our main task, it is necessary to indicate the meaning of the demand schedule shown. The line DD' portrays a *stock* demand schedule; such schedules require a somewhat different interpretation from the usual or *flow* demand schedules. A flow demand schedule means the quantities that will be taken per unit of time at various prices when other prices are taken as given. A stock demand schedule means the quantities that will be held at various prices at a particular date in time when the quantities of stocks are taken as given, *including the quantity of the stock of the commodity in question*. The prices taken as given

FIGURE 1



are only those of all flows during the next moment of time. Thus the demand schedule pictured in Figure 1 is constructed subject to the conditions that all stocks of possessions, including stocks of cash in people's hands, are definite amounts inherited from the past, when the quantity of government debt inherited from the past is the amount OO' . Re-interpreted, then, the demand schedule for government debt refers to the quantities of debt people are prepared to subtract from or to add

to their actual holdings on a given date. The point O' , rather than O , is the relevant origin to indicate the behavior content of the demand schedule.

The reason for looking upon stock demand schedules in this way (and this reason applies to stocks in general as well as to the public debt) is fundamentally that the demand to hold something cannot be independent of the quantity of the thing already in a person's possession. No such problem arises with flow demand schedules because the flows come into existence during the period and, as flows, cannot be possessed at the outset.⁶ But for something like government debt the amounts people can afford to hold depend significantly upon how much they are caught holding, as well as the amounts of the stocks of other things they hold. The necessary dependence of demands for stocks upon the quantity of the stock in existence can be tested experimentally by interpreting the demand for government debt as a flow demand schedule and noting the resulting confusion. Our test is whether or not the quantities demanded at various prices can be independent of the amount actually held. Select some point between D and P on DD' . At this point, the total debt is smaller than OO' ; thus we have supposed that some debt has somehow disappeared, say by a fire. But the people who owned that debt have a portion of their assets wiped out. These people cannot afford to hold as much debt as they did originally. Now, if, in any case, these people were not disposed to continue to hold debt on any terms

⁶ The usual statement of the theory of consumer choice is, in a strict sense, a theory of demand for services. It is applicable to goods, as distinct from services, only if the inventories of such goods in the hands of the consumer can be treated as negligible.

whatsoever, and DD' as originally constructed took account of these tastes, the destruction of debt makes no difference at all in the demand to hold debt. But this is the limiting case. In any circumstance where the people found holding debt at a given date in time like to hold debt, the destruction of some of their assets, including debt, forces them to economize on asset holdings, *including debt*. In the general case, the demand to hold debt depends upon the quantity of debt in existence. Properly interpreted, this fact need occasion no special difficulty. At any date in history, people find themselves with stocks of various things inherited from the past. The relevant choice to them is to continue to hold just that amount of each kind of stocks or to add to their holdings of some kinds and subtract from their holdings of others. What they would do if, somehow, the past had been different, is not relevant to their choices now, however relevant it may be to questions of speculative history.

Keeping in mind that the quantity of public debt is OO' and the behavior content of DD' means the changes in this holding people are prepared to make at various prices, let us suppose that the central bank or the government offers $O'N$ debt for sale. The price of debt now becomes VN and the total quantity outstanding, ON (Figure 1). It is immediately evident that owners of old debt take a capital loss, measured in money, indicated by the area $SRPQ$. Their net asset position is changed in the same way as it would be if they were made subject to a tax proportional to their debt holdings and equal in yield to the area $SRPQ$. The relation is of course reversible. If, instead, the debt outstanding is decreased

by official action, present debt holders experience a capital gain. This gain is equivalent to a proportional subsidy.⁷

In the pure liquidity case, the burden of the debt operation is restricted to those who are caught holding government debt on the date in question. This burden is not shifted at all to other groups. For the pure liquidity conditions to be satisfied, the terms at which people are prepared to add to or subtract from their stocks of other things must not be affected at all by a change in the price of government debt. People, when confronted with the opportunity to add to their stock of public debt, are willing to part with some of their stock of cash and with nothing else. The pure liquidity case might equally well be described as a completely insulated government bond market. An official offer to sell more government bonds lowers the price of bonds without affecting at all the prices of other assets. The incidence of the debt operation is confined to holders of old government debt.

The deflationary impact of the offer of $O'N$ amount of debt for sale operates only through the financial constraint placed upon existing debt holders. They find one of their classes of assets has fallen in price. Their adjustment to this loss can operate only in one direction—to lower their demands for currently produced items during the ensuing moment of time. At any given set of prices for consumption items and for new real assets, a person whose asset position measured in money has fallen cannot demand as much in the form

⁷That capital gain and loss may result from official debt operations is, of course, a well-known, but sometimes neglected, fact. Their importance has been stressed by Herbert Stein, "Price, Flexibility and Full Employment: Comment," *American Economic Review*, XXXIX (June, 1949), 725-726.

of goods and services supplied by others. The deflationary influence arising from this source may vary from zero, when people spend on current output exactly as much as they would have spent in the absence of the loss, to 100 per cent when they spend less by exactly the amount of the loss. The particular form that their economy takes depends upon their tastes. Some groups may economize mainly on consumption items; others, mainly on currently produced new real resources. The wealth position of those subject to the capital loss is a significant factor in this connection. The wealthier people are, the more likely it is that they will economize on new investment items rather than upon consumption.

The reaction of people to their losses, however, is not tied in any peculiar way to a debt operation. If the government selects some group to pay a flat-sum tax, they may simply allow their cash balance to fall, or they may spend less for current output or, more generally, both, and the particular items they choose to go without depend upon their tastes. Since wealthier groups exhibit relatively strong tastes for new real assets, a tax upon them is likely to reduce the money value of new investment more than the money value of current consumption.

II. *Substitution Between Government Debt and Private Old Debt*

The prices at which people are prepared to own assets other than government debt will, in the general case, be influenced by a government offer of more debt to the market. Many assets are in fact close, and in some instances perfect, substitutes for government debt. Many forms of private debt instruments are substitutes for govern-

ment debt. An offer of a government or its central bank to sell more debt, identical in form with old debt, lowers the demand for outstanding private debt contracts and reduces their prices. No transaction need in fact occur to make these prices fall. It is sufficient that owners regard private and public debt as substitutes.

The extent of the fall in prices of private debts depends among other things upon the life expectancy of the debt contracts in question. A promise to pay one dollar 30 days hence may fall only slightly in price, whereas a mortgage with 18 years to run will fall significantly in relation to the fall in price of the government security. In other words, a rise in the yield on government securities is communicated to other securities more or less.

Holders of old private debts take a capital loss as a result of the government debt operation. Some of their assets command a lower price in money than they would command if the additional government debt had not been offered to the market. This loss of private creditors has a counterpart in the gain of private debtors. A person whose obligations fall in price experiences a capital gain.⁸ The net worth position of a person or organization is the value of possessions including human earning power minus the value of liabilities. A decrease in the price of liabilities is an increase in net worth

⁸ Occasionally governments have suspended service on their foreign debt and have then proceeded to buy it back at bargain prices. Understandably, this technique of making one's obligations cheap is sometimes looked upon as sharp practice. A detailed and scholarly account of government repudiation of debt may be found in *State Insolvency and Foreign Bondholders*; Edwin Borchard, Vol. I, *General Principles*; William H. Wynne, Vol. II, *Selected Case Histories of Governmental Foreign Bond Defaults and Debt Readjustments* (New Haven: Yale University Press, 1951).

position. Theoretically, or perhaps one should say arithmetically, the capital losses of existing creditors must be precisely equal to the capital gains of existing debtors. This conclusion is self-evident when organized secondary markets exist for every type of debt contract.

In economic theory, little weight is ordinarily attached to the losses of existing creditors or to the gains of existing debtors arising from a change in prices of debt. This emphasis no doubt reflects certain institutional practices. Even in countries with the most advanced system of financial development, organized secondary markets for the debts of private groups are relatively few. It is common for both creditors and debtors to regard particular debt instruments as entailed in the sense that the initial buyer of a debt instrument is expected to hold it throughout its life. A variation in what the price would be in an organized market becomes of little or no concern to either party. Where organized markets do exist, any price change is likely to be of more concern to creditors than to debtors. A price fall, whether the debt is held or sold, impairs the asset position of the creditor and may subject him to financial embarrassment, whereas debtors may exhibit little interest in their capital gains because they are more interested in the terms on which they can contract new debt. As a strictly theoretical proposition, however, whether secondary markets exist or not, the losses inflicted upon creditors by an official offer to sell government debt are counterbalanced by the gains given to debtors. No presumption therefore exists that the two groups taken together will spend less on current output at given prices than they would otherwise spend. There is no

incidence of a debt operation on these two groups when viewed together.

III. Effects upon Private Borrowers

A group that does experience a capital loss not offset by the capital gain of others consists of potential debtors, provided private new debt is a substitute for government debt. A potential debtor at any given date is a person or private organization that could sell more of its own debt to others. Potential debtors have untapped borrowing power. The capital loss inflicted upon them by an official offer to sell more government debt operates through the reduction in the price of debt they are in a position to market.

To penetrate the obscurities of "credit rationing," it may be helpful to think initially not in terms of debt but in terms of a commodity, say, apples. Suppose persons and organizations own reserve supplies of apples. These apples are always sold in marked containers bearing the identification of the original seller. They have other peculiarities. The barrels of unsold apples in the cellar of any one person or organization are considered to be homogeneous by their owner. But potential buyers take a different view. They entertain the theory that the proportion of rotten apples per barrel acquired from their original owners increases as more barrels leave the possession of that owner. Now, if the government offers to sell barrels of apples, these being regarded by all except perhaps foreigners as homogeneous, the demand schedule for the apples owned by any private person falls and therefore the price of his apples falls. Any person who had sold his apples to others at some time in the past now has an incentive to buy back some of them or, what amounts to al-

broken line AE is the marginal revenue curve from the sale of his debts. No market imperfections are implied by this construction. The negative slope of AG and hence the declining marginal revenue curve reflect the fact that a person can control the quality of his debt contracts by controlling the amount he sells to others. But for any given quantity, the market price is to be viewed as given to all parties concerned. There is no rationing by non-price devices.

The line CD is a representation of the idea of the *reluctance to borrow*. Such a reluctance is not confined to commercial banks in borrowing from a central bank. Some people are reluctant to borrow because they thereby sacrifice a reserve fund to meet adversities, and they also expose themselves to the possibility of severe losses. In countries in which conservative mores dominate, a social stigma is attached to heavy personal indebtedness.¹¹ This dim view of indebtedness is often extended to debts of governments.

The reluctance of people to borrow need not be and typically is not absolute. The amounts of debt that people are prepared to create depends upon the terms on which debt can be sold. Thus the line CD is drawn to have a positive

slope on the theory that people are prepared to part with more of their own debt at higher prices for it. The position and slope of CD depends of course upon a person's taste, starting high on the left-hand vertical axis and rising sharply for prudent souls, and starting low and rising slowly for the reckless.

At a given date, the person depicted in Figure 2 finds himself with OT units of debt outstanding with a market price of PT , because at this quantity the marginal revenue from sales of debt just equals the price he places on his retained debt. Let the demand for his debt fall to BH as a result of a government sale of its own debt, forcing down the price of the person's debt to RT . If a secondary market exists for his debt, he buys back the amount ST and the price becomes VS . This adjustment is the process of substituting his own debt for money and for other assets in his possession. Similarly, others find the price of their outstanding debt lowered, and they too have an incentive to reduce their debt. As private debtors adjust, the supply of various private debt instruments to the market falls, and thus the demand schedule for lenders for the debts of borrowers adjusts upward. To avoid complicating the diagram, let us think of the line BH as representing the final equilibrium demand schedule for the person's obligations.

The capital loss inflicted upon this person by the government debt operation is the difference between the total sum of money he could obtain by exploiting his borrowing power to the limit when the demand for his debts corresponds to AG and the corresponding total sum when the demand corresponds to BH . This loss in gross terms is precisely measured by the difference between the areas $TQEL$ and TJF when

440-447. Questions concerning the relevance of risk to the size of firms are not germane to the present discussion.

¹¹ In some social systems, people reputedly exhibit no reluctance to become indebted; they are prepared to borrow as much as they can. The CD line of figure 2 is then reduced to the point L . One factor of some importance in accounting for the large differences in interest rates on private debts in various social systems is the vastly different attitudes toward becoming indebted. These differences exist for business as well as personal debts. There are corporations in the United States with "clean" balance sheets; those in control refuse to borrow on any terms. The CD line of such purists starts above point A and rises steeply.

his outstanding debt is *OT* and his retained debt is *TL*. Against this loss might be set the capital gain arising from the decline in price of his outstanding debt, but for reasons developed in Section II, this gain is offset by the capital loss of those who are caught owning this debt on the date in question. Thus the gross loss is the relevant measure of the burden of a debt operation on potential debtors.

This capital loss on retained debt is larger for people who have small outstanding debts and large unused borrowing power; it is zero for people who have already mortgaged themselves and their possessions to the last unit of debt they can sell and obtain a positive marginal sum.¹² Such people, having already fully exploited their ability to borrow, cannot be hurt by a positive government debt operation. Thus in societies in which people have large unexploited ability to create more debt, a government debt operation can inflict losses upon them whereas in societies in which everyone is "loaned up," no such power exists.

For purposes of simplicity of exposition, the previous analysis was developed by treating private debts as having a uniform maturity—one year. Actually, private debts can have various life expectancies.¹³ The choice involved in

¹² Presumably people would not try to sell debt in amounts such that they received a smaller total sum for a larger quantity of debt. The relevant range of the demand curves for debt is the range of a price elasticity of more than unity, i.e. the range in which marginal revenue is positive.

¹³ I exclude, however, the possibility of private groups other than banks being able to supply demand liabilities because this means they can create money. I also exclude the possibility that real persons can create perpetuities. If a person is to sell a perpetuity, he must have the right to commit his successors to interest payments, and this means he must have the right to realize now on the potential earnings of his offspring and of their off-

spring. Such practices are repugnant to societies with liberal traditions. Where they are found, as in some Asiatic countries, it is no accident that ideas of personal freedom are only feebly entertained. Liberal societies cannot tolerate the view that people have a right to sell any kind or any amount of binding debt they please.

creating new securities of various maturities by potential borrowers and the relative demands for them by potential lenders depends upon a number of considerations, among which the fear of loss appears to have peculiar importance. For lenders, long-dated securities expose them to larger possible losses because of future price fluctuations than do short-dated securities. In addition, the assets and the earning power of the borrower are subject to greater variation in value, the longer the period in view; this factor also operates to make long-term loans more risky. For borrowers, the risk factor is just reversed. A short-term loan is risky since, in the event of a decline in the demand for a person's debts at the maturity date, he may be required to liquidate assets under adverse circumstances,¹⁴ or, if he must arrange his asset holdings in such a way that he can always repay his debts without reborrowing, he gives up the maneuverability and profit possibilities of other asset combinations. Without exploring this complicated topic in detail here, it is sufficient to note that those who out of choice or necessity find their debts coming due at particular dates will be especially injured financially by a positive government debt operation on those dates.

IV. *Effects upon Owners of Resources*

The third group that may experience financial gains or losses as a result of

¹⁴ This point has been emphasized by Albert G. Hart, *Money, Debt, and Economic Activity*, 2d ed. (Prentice-Hall, 1933), pp. 202-203.

negative or positive government debt operations are those who own resources used to produce more resources. More generally, any person whose income depends upon the level of demand for currently produced assets is subject to the incidence of a positive debt operation if these assets are treated as substitutes with government debt for ownership purposes.

In the simplest case, some class of assets, say houses, is viewed as a perfect substitute for government securities. Houses and government securities are perfect substitutes (disregarding the indivisibility aspect) provided the following conditions are satisfied: the future income to be obtained from owning either class is considered unique (a certainty-equivalent projection of gain); the income per unit of either class of assets is independent of the size of one's holding of either class; and considerations other than price and future gain are irrelevant to choice. These conditions mean in effect that demanders, in selecting between houses and government debt, act as if they were buying units of future net income, and from this point of view the two classes of assets become one class. Furthermore, the prices of old houses must satisfy the condition of not exceeding the price at which contractors are prepared to supply new houses, on the principle that the price of a stock of a homogeneous class of something can be no higher than the cost of adding another unit of it.¹⁵

¹⁵ R. W. Clower takes a different view. He states "... all durable goods which are newly produced during the period can be added to previous holdings without any noticeable reduction in price." ("An Investigation into the Dynamics of Investment," *American Economic Review*, XLIV [March, 1954], 68.) He makes the explicit assumption that the period under observation is very short. The prices of old things thus are thought to determine the prices of new things of the same type. This reason-

Since, by hypothesis, government debt and houses are perfect substitutes, the price of debt has an invariant relation to the price of houses.

If, now, the government offers more debt for sale, buyers will buy all of the additional supply at an unchanged price, and the adjustment takes place by lowering the demand to add to the stock of houses. Some of the adjustment to this reduction in the demands for houses will occur in price and some in quantity produced per unit of time, depending upon the characteristics of the house construction industry. In either event, however, incomes fall; those choosing to remain in the industry take a reduction in income because the price of houses has fallen, and those who leave do so because they choose to take less of a reduction in income by producing other things. The latter group spreads the burden of the debt operation to others by offering their services in competition with those in other fields. In the case in question, a debt operation has effects similar to those of an excise tax levied upon new house construction. The tax is partly shifted from builders of houses and their suppliers if resources used to produce houses are adaptable to the production of other things.

ing appears to neglect the crucial importance of margins and thereby reverses the line of causation in the pricing of stocks. If old and new automobiles are perfect substitutes and a competitive market exists, the prices of old cars must conform to the prices of new cars as long as it pays to produce new ones at all and as long as there is no nonprice rationing of new cars. No one will pay more for an old car than he need pay for a new one. That the number of new cars produced in one second may be some tiny fraction of the stock of cars in existence does not imply that margins cease to have relevance. The same principle of pricing applies to all types of stocks that are currently produced, with the exception of those for which the actual demand has an elasticity of infinity (e.g. gold).

The supposition that debt and houses are perfect substitutes is an extreme illustration of the more general fact of degrees of substitution. The substitution relation may be simple and direct, as found for example when people weigh buying government debt against buying new resources, and are just induced to hold more government debt and fewer new resources when the price of government debt falls. Government debt and new resources may also be investment substitutes through a complicated route of linked substitution. For example, the buyers of government debt may themselves only consider holding assets in the form of debt instruments and cash. The choices of financial organizations mainly take this form. But the decline in the demand for all debt instruments, under the impact of the offer to sell more government debt by a treasury or a central bank, may induce some person desiring to possess a house to buy a less expensive one, when he finds that demanders of any mortgage he is prepared to create offer to buy units of it at a lower price. The link may occur because, as the demand for private debt contracts falls, people buy back some of their outstanding debt by giving up real assets that are competitive with new resources. It is sufficient for our purposes to establish that government debt to hold can be competitive with new resources to hold. To the extent that such competition exists, a debt operation inflicts an income loss upon owners of resources engaged in producing new resources and, if they are mobile, upon the owners of resources that are competitive with resources capable of producing new assets.¹⁶

¹⁶ If we look upon new resources as a composite commodity and upon consumption services as an-

V. *Direct and Indirect Deflationary Effects*

The groups who are exposed to the incidence of a debt operation are existing owners of government securities, existing owners of unused borrowing power, and owners of resources engaged in the production of new resources and those others who compete with them for money income. Owners of private debt contracts might also be included, but if so, private debtors would have to be included as an offsetting group.

An offer to sell more government debt has a direct deflationary effect on the markets for some things, and it has an indirect deflationary effect occasioned by the financial burden placed upon the groups already identified. The direct deflationary effects depend fundamentally upon the degree to which the prices of government debt are linked to the demands for other things. At one limit, the pure liquidity case, the link may be nonexistent; the choice in buying more government debt implies only that less cash is held. In this case, only owners of old government debt experience the incidence of a debt operation. Somewhat similar results follow if government debt and private debt are substitutes, but neither is a substitute for real things. If this case is ever realized, only owners of existing government securities and potential borrowers are adversely affected by an official offer

other composite commodity, it is clear that various combinations of these commodities can be produced with existing resources. If the production transformation relation between them happens to be linear, the relative prices of consumption items and investment items will be invariant. A debt operation then reduces real investment and increases real consumption, lowering the absolute prices of both. The burden of the debt operation is diffused to all owners of real resources and is proportional to their income.

to sell more government debt, and the entire deflationary effect on the demands for currently produced items is restricted to the economy measures these groups take because they find the capital value of their assets reduced. At the other limit, government securities, private securities, and currently produced goods are treated as perfect substitutes. People always weigh buying a security against buying goods. If substitution is perfect, a government or a central bank in offering to sell more debt will not increase rates of interest on that debt at all; there is instead a reduction in the demand for newly produced items. In this event, the entire incidence of the debt operation rests upon groups whose resources are engaged in producing new resources and upon those others with whom they compete for income. Owners of public debt and of retained debt are unaffected. This limiting case fits with F. H. Knight's theory that rates of return are determined by the costs of producing new resources in a setting in which yields on debt contracts must equal rates of net return on real things.¹⁷

¹⁷ Knight's use of the assumption of perfect foresight automatically assures that all types of assets other than cash are perfect substitutes for ownership purposes, because each physical unit represents some definite number of dollars of future net income. If, then, new assets can be produced, within the relevant margin, at constant costs, the prices of all assets, old and new, are determined by the marginal costs of producing new assets. In this event, a government debt operation could not affect the yields on government debt; it could only induce an expansion or contraction in the rate of new investment. Monetary policy conducted by open-market operations becomes, in this view, just as effective as taxation of the income of those engaged in producing new resources. However, the assumption of perfect foresight severely limits the application of this point of view. For a condensed exposition of Knight's position couched in a framework somewhat similar to that used in this discussion, see "The

These cases are limiting ones; actual cases fall between these limits. Public debt and private debts are substitutes, and debts in general are substitutes in various degrees for real assets. Some people borrow to finance expenditures, not to hold more cash; some people buy government securities instead of buying real things. The particular types of real items people look upon as substitutes for debt instruments may be expected to vary widely as among epochs of any one country and as among contemporary social systems. In the United States, such items as television sets, automobiles, houses, washing machines, and other types of expensive personal equipment are likely to be close substitutes for debt for the reason that many people, if they are to acquire them at all, must simultaneously give up retained debt. In poor countries, the debt substitutes are much more likely to be confined to goods that are used to produce commodities for others, such as agricultural equipment. Furthermore, in poor countries, the liquidity consideration is not likely to play an important role; people are too poor to afford to hold a large proportion of their assets in the form of cash, and therefore an increase in the supply of government debt is likely to induce a large reduction in the demands for real things, provided a market exists for government debt.

The indirect deflationary effect of official debt sales depends, in the first instance, upon the size of the direct effect. If the direct effect is small, so is the indirect effect. The direct effect corresponds to the yield of a tax and the indirect effect corresponds to the

Quantity of Capital and Rate of Interest," II, *Journal of Political Economy*, XLIV (October, 1936), 642.

curtailment of demands of taxpayers resulting from the diversion of their financial power to the government. A debt operation is double-edged because it directly deflates some prices as well as inducing those adversely affected to economize on current output. Some presumption exists that the indirect effects will be larger to the extent that the financial burden takes the form of decreases in income from production instead of only capital losses on existing assets. A reduction in income is an immediate and obvious fact to those affected whereas the reduction in the prices of debts may go unnoticed for a time. Furthermore, when the direct and indirect effects operate to deflate private demands for products, the total deflationary effect of debt operations is likely to be large in relation to the size of the debt operation.

VI. Conclusions

The foregoing discussion develops some of the implications of offers by a government to sell more debt. The analysis is intended to be reversible. Official purchases of government debt instruments increase their prices, raise the demands for other forms of debt, and raise the demands for some currently produced goods. There is little theoretical support for the idea that debt and monetary policy can depress economic activity but that it cannot raise it. The direct effect of an official offer to buy government debt inflates the prices of government securities and by substitution inflates the demands for private debt instruments and for some classes of new real resources. The magnitude of the direct effect depends upon the size of the public debt in private hands, the amount of that debt that can vary in market price, and upon

the closeness of the substitution of public debt with private debt and with real assets.

In a setting of declining economic activity, tastes of investors typically shift in the direction of stronger preferences for safe as opposed to less safe assets, thereby increasing the demands and prices of public debt but decreasing the demands and prices of some "risky" types of private debt. The result is a greater dispersion of rates of interest.¹⁸ An official offer to buy only safe securities may then be only weakly communicated, if at all, to many forms of private securities, especially the unborn debts of persons and business organizations with less than perfect credit ratings. In such a setting, effective monetary and debt policies must, at the very minimum, offset the reduction in the demands for new debt instruments of private groups. Otherwise, the financial constraint upon private spending behavior occasioned by the shift of tastes toward safe assets continues to increase the deflationary pressure. In such settings official dealings in the market for Treasury bills can scarcely be expected to reverse a severe deflationary movement or even dampen it. The maintenance of the demand for the kind of debt instruments that people can create is an indispensable condition for reversing a deflation by debt operations.

But official debt operations cannot be expected to reverse a deflation or prevent an inflation unless, at least, they are employed in the right direction. Economic thinking has been less than a model of clarity in pointing out the right direction. Those responsible for

¹⁸ For an empirical illustration of the proposition, see Edward Marcus, "The Interest-Rate Structure," *The Review of Economics and Statistics*, XXX (August, 1948), 223-226.

official policies have been left to wander in the wilderness of financial traditionalism for lack of guidance in this area. The result has been, and continues to be, the adoption of perverse debt policies. In periods of declining or depressed economic conditions, proper debt policies call for a reduction of the public debt regardless of the state of the budget, and in the opposite circumstances for an increase in the public debt outstanding.

The justification for this view is evident from the previous discussion. An official offer to sell more debt operates like a tax for the reasons already

discussed. If the object of financial policy is to raise the level of demands for products, taxing people by a debt operation reduces demands for products; it is a perverse policy. Other financial activities, such as government expenditures, subsidies, and taxes, may together be employed in the right direction, but if so, the offer of more government debt to the market is offsetting. If in fact the joint policies happen on balance to be compensatory, it is a lucky accident. At this late date, it should not be necessary to rely upon lucky accidents.

CONSTRUCTIVE TAXATION: Summary of Results of Section 722 of the Excess Profits Tax Law of World War II

GOLDIE FRANCES STONE *

ONE of the most unusual types of tax relief in the federal income tax system has been that granted under the several excess profits tax laws with respect to computation of base period income. World War I experience with the tax indicated that some corporations would have been seriously hurt if the Commissioner of Internal Revenue had not been given discretion to modify the taxpayer's base period credit for the excess profits tax. Difficulties with these provisions, section 210 of the 1917 law¹ and section 327 of the 1918 law,² were legion, and litigation continued in the courts for more than twenty years. Dissatisfaction with this method of providing relief was so great that it was considered imperative to avoid the method at the time that the

World War II excess profits tax was first considered.³

The initial proposal for an excess profits tax by the Treasury Department in 1940 did not contemplate the appearance of cases requiring relief. In fact, the first plan for an excess profits tax specifically rejected a general relief provision; the proposed law was regarded as so well written that it obviated the need for general relief. Despite such optimism, hearings on the Second Revenue Act of 1940 indicated that many corporations would be hurt by the tax unless some section was written into the law to provide relief for them.⁴ The Second Revenue Act of 1940, as passed by Congress, contained a general provision granting the Commissioner of Internal Revenue the right to adjust abnormalities in income or capital. This was considered only a stop-gap provision⁵ and was superseded

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¹ Revenue Act of March 3, 1917, 39 U. S. Stat. at L. (1915-1917) Chap. 159.

² Revenue Act of 1918, 40 U. S. Stat. at L. (1917-1919) Chap. 18.

³ *Excess Profits Taxation*, 1940, Joint Hearings before the Committee on Ways and Means of the House of Representatives and the Committee on Finance of the Senate, 76th Cong., 3rd sess. (Washington, 1940) Statement of Secretary of Treasury, p. 95.

⁴ *Ibid.*, pp. 107, 117, 293-314, 380-385, 203-213.

⁵ House Report No. 3002, to accompany H. R. 10413, *Second Revenue Bill of 1940*, 76th Cong., 3rd sess., 1940-2 C. B. 548, 557.

by section 722 of the Excess Profits Tax Amendments of 1941.⁶

In the 1941 law, relief was provided for two situations:

- 1) Where the character of the business had changed or the business had been commenced during the base period;
- 2) Where production, output, or operation had been interrupted or diminished due to abnormal events during the base period.

The bill became law on March 7, 1941, but was not left unchanged for long.

The Revenue Act of 1942 (approved October 21, 1942)⁷ enlarged section 722 to include relief for depression in base period income due to economic circumstances, variant cycle and sporadic high profits and production unrepresented in the base period, and other factors affecting base period income. An income credit was also provided for corporations formed after the close of the base period; such corporations had been restricted previously to the invested capital credit. If invested capital was low because of specific conditions, the taxpayer was allowed a hypothetical income credit.

No change of substantive importance was made in the provisions of section 722 after 1942.

In this case, as with the World War I tax, objections to the relief provision were many. Litigation concerning section 722 has continued to the present time; however, since recourse from the Commissioner's decision was limited to the Tax Court, it may not take twenty years to complete these cases.

The Korean War again created the need for an excess profits tax, and for the third time a relief provision was considered necessary.⁸ At this time, the framers of the law provided relief to the taxpayer under specific qualifications.⁹ A corporation was able to qualify for relief only if it fulfilled conditions based on exact percentages specified in the law, and then it was granted relief of an exact percentage amount. Again dissension was evident. Sentiment in favor of a more general relief provision, such as section 722, spread, but the Korean War ended in 1952, and the tax was repealed at the end of 1953.

The discontent with the Korean War tax method of relieving taxpayers and the concomitant recognition of the more helpful provisions of section 722, the continuance of litigation concerning section 722, and the probability that any new conflict would require an excess profits tax—all disclose the continuing importance of this provision even though the basic law was repealed in 1945. It seems desirable therefore to analyze the results of the specific provisions of section 722 in some detail.

The Bureau of Internal Revenue's experience with the World War I relief sections provided, in a negative way, the basis for section 722 of the World War II tax law. Similarly, the knowledge obtained from the administration of section 722 served to influence the form of relief provisions in the Korean War tax law. However, the adverse judgment on section 722, as reflected in

⁶ Excess Profits Tax Act of 1910, 64 U. S. Stat. at L. (1910-51) Chap. 1199.

⁹ Many new relief provisions were added by the Revenue Act of 1951. 65 U. S. Stat. at L. (1951) Chap. 521.

⁶ 55 U. S. Stat. at L. (1941-42) Chap. 10.

⁷ 56 U. S. Stat. at L. (1942) Chap. 619.

the Korean War excess profits tax law did not give full credit to that section.

It is generally agreed that section 722 was not administered very well in the early years. After the Excess Profits Tax Council was given full jurisdiction (1946) and the Tax Court had rendered decisions on a few cases (by 1948), the waiting time for judgment upon a relief petition was shortened. The poor record of completions was ascribable in part to taxpayers. Many claims were filed which had only a remote chance, if any, of qualifying under the various subsections. Such claims appear to have been based largely on the hope of a providential interpretation.

Generally, section 722 provided relief for taxpayers through computation of a hypothetical base period net income to be used as the credit for the excess profits tax (section 722(a)). This hypothetical income took the place of actual base period net income, or, if the corporation did not operate during the base period, took the place of the invested capital credit.

This constructive average base period net income was to be estimated upon the basis of the taxpayer's experience in the 1936-39 period or in prior years, the experience of its particular industry or directly comparable competitors, and upon the general economic climate of the base period. The credit thus represented a distillation of all of the factors, external and internal, that affected the corporation.

A taxpayer corporation which was entitled to compute the excess profits tax credit by the income method was eligible for relief if it was able to prove one of five conditions (section 722 (b) (1)-(5)). If a company was re-

stricted to the tax credit based upon invested capital, it was necessary to prove one of three conditions (section 722 (c) (1)-(3)) in order to obtain relief. New corporations and some foreign corporations were so restricted.

Most of the published information on section 722 is contained in the Tax Court Reports on the cases which were tried and in publications of the Treasury Department. From these, the basic information was drawn for the following summary of the specific sections of 722.

Judging from the cases decided by the Tax Court, the most important subsections of 722 were (b) (1) and (2), which can be considered together, and (b) (4). The following table lists the number of cases which were decided by the Court under each subsection and the number which received relief to June 30, 1955.

Section 722 (b) (1)

Section 722 (b) (1) provided relief upon demonstration that normal production, output, or operation was restricted during the base period because of an unusual or peculiar event. Under this section taxpayers actually secured relief from the Tax Court where a strike, flood or fire was shown to be the causative factor.¹⁰ Other events which probably secured relief for the taxpayer were freezes, blizzards, hurricanes, explosions, and crop failures and droughts for farmers. While readily recognizable events of this kind were qualifying, relief itself was dependent upon a reconstruction of income. If the event did not cause an interruption

¹⁰ Cf. *Schneider's Modern Bakery, Inc.* 19 T. C. 763 (1953). *Fishback Awning Co.*, 19 T. C. 773 (1953); *Avey Drilling Machine Co.*, 16 T. C. 1281 (1951).

by the regulations as qualifying. Although the Tax Court ruled that these circumstances were qualifying, relief was ultimately dependent, as above, upon a reconstruction of income.

The variety of reasons advanced by taxpayers as qualifying economic circumstances or events for an industry was great. They ranged from a simple demonstration of deficits for the four base period years, to a complicated statistical presentation of the effects of a price war in the taxpayer's industry. The price war situation had been considered by the drafters of the Revenue Act of 1942 to be a qualifying circumstance under the subsection, but subsequent cases demonstrated the difficulty of proving the existence of a price war as distinguished from the severe competition of the base period years.¹⁵ A price war that was approved as a qualifying economic circumstance was one that resulted in price reductions to meet the original challenge, bankruptcies, and later, restoration of the price cuts.¹⁶ Relief was not secured by the taxpayer, however, as a reconstruction of income did not provide a credit in excess of the credit computed under another provision of the law.

Some of the circumstances which were utilized unsuccessfully by taxpayers as pleas for relief were: depressed prices due to over-production; an injunction on price-fixing; national prohibition; farm legislation; management factors; changes in merchandising; low level of consumer purchases; abnormally low turnover; and industrial unrest.¹⁷ None of these circumstances

was considered either temporary or unusual for the corporation or the industry; all were regarded, instead, as symptomatic of the general economic conditions of the base period or an internal weakness of the corporation which could not be allowed for under section 722 (b) (2).

In the Korean War excess profits tax, a similar provision was incorporated. In this instance, the only example included in the regulations was the loss of a large customer. A depressed industry, under the new tax law, was rigidly defined and was proclaimed as such by the Secretary of the Treasury. In addition, reasons for the depression were not required to be proved.

In summary then, there were few economic circumstances which secured relief for the taxpayer under subsection (b) (2). Most of the conditions which were offered for relief were not the result of unusual short-run forces beyond the control of the taxpayer, but were either long-run or internally derived. In addition, the taxpayer was required to demonstrate that base period income was depressed in order to secure relief. The rule which evolved included a comparison of the 1922-1939 average income with the average income for 1936-1939. If the long-term income was above the base period, the income of the latter period was considered depressed. Under this test very few corporations and industries were proved to have depressed base period income.

Section 722 (b) (3)

In the third subsection of 722 (b), relief was provided for a variant profit cycle and for sporadic high profits and production inadequately represented in

¹⁵ Cf. *Monarch Cap Screw and Mfg. Co.* 5 T. C. 1220 (1945).

¹⁶ *Helms Bakeries*, 23 T. C. 967 (1955), 986.

¹⁷ *Industrial Yarn Corp.* 16 T. C. 68 (1951); *El Campo Rice Milling Co.* 13 T. C. 775 (1949);

Hearn Dept. Stores, Inc. 23 T. C. 266 (1954).

the base period. This condition was supposed to be characteristic of the industry of which the taxpayer was a member. The proof of a claim under section 722 (b) (3) involved the presentation of facts for both the taxpayer and its industry.

Under the variant profit cycle provision of 722 (b) (3) (A), only one taxpayer obtained relief before the Tax Court.¹⁸ The taxpayer operated a chain of low-price cafeterias which were more profitable in depression periods than in periods of prosperity. For the company, the years just prior to 1936 were prosperous; whereas, 1936 to 1939 were depressed years. The movement in profits was the reverse of that for general business profits.

The law, as originally written, was intended to aid corporations in the construction industry, which was regarded as having a long cycle.¹⁹ In actual administration of the law, the base period was found to be one of prosperity for most of the corporations in that industry.²⁰ In this subsection, as well as the others, the effect of the alleged factor upon income was important. Unless the taxpayer was able to show that the depression in income was attributable to the factor in question, relief was not available since there were no legal grounds then for reconstructing the actual base period income.

Taxpayers who were unsuccessful in securing relief under the variant profit cycle provision represented the following industries: rice milling; various classes of construction; lumber; ma-

chine tools; railroad equipment; printing and publishing; wool rug and carpet; cotton textile.²¹ The depression, if any, during the base period was deemed to reflect secular changes in the industry rather than a variant profit cycle.²²

Under section 722 (b) (3) (B), sporadic high profits and production, the beneficiaries were expected to be corporations which processed agricultural products. As it developed, all of the corporations which appeared before the Tax Court under this subsection did handle farm products—cotton, vegetables, onions, and poultry. None of these companies secured relief under section 722 (b) (3) (B), however, since their depressed base period income was not found to be ascribable to an absence of high profits in these years but was attributed, instead, to a long-term decline in business or to management errors.²³

The poor record for relief established under subsection (b) (3) as a whole was perhaps one reason for the rejection of a similar relief provision for the Korean War excess profits tax. The construction industry was known to have been very prosperous between 1946 and 1949. The concept of business cycles had been shown to be extremely difficult to define, as was the distinction between the cycle of a particular industry and business generally. Further-

²¹ *El Campo Rice Milling Co.* 13 T. C. 775 (1949); *Austin Co.* 22 T. C. 703 (1954); *Packer Publishing Co.* 17 T. C. 882 (1951).

²² John E. Parkington, "The Base Period Status of Railway Purchases," edited by J. H. Jarett, Washington, D. C.: Excess Profits Tax Council, January, 1949 (Mimeographed).

²³ *Roy Campbell, Wise and Wright, Inc.* 15 T. C. 894 (1950); *Wadley Co.* 17 T. C. 269 (1951); *Lampert Co.* 17 T. C. 1079 (1951).

¹⁸ *Waldorf System, Inc.* 21 T. C. 252 (1953).

¹⁹ U. S. Treasury Regulations, Section 35. 722-3 (c) (1).

²⁰ Coll. Mim. 5806, 1945 C. B. 272, 272.

more, factors peculiar to a particular industry were sometimes hard to prove.²⁴ The depressed industry provision of the later tax (section 446) did cover this provision to some extent, but under the law the Treasury Department proclaimed the industries which were considered depressed.²⁵

The subject of business cycles and sporadic profits is a very complicated one. The limitation of the relief provision to the cycle in profits, thus excluding cycles in sales, production, and costs, was unfortunate. If other statistical series, which are more readily available, had been permitted for the demonstration of a variant cycle, more industries probably would have secured relief, assuming they could have demonstrated the existence of a depression in base period income. The recognition by the Tax Court of leads and lags in the sequence of income developments as the basis for a variant cycle claim was in accord with observations on cycles. Another expected difference between series was the amplitude of the movement from peak to trough. The taxpayer was required to demonstrate the existence of both a lead or lag and a difference in amplitude. The initial important obstacle which confronted many taxpayers was an inability to collect suitable industry data. This difficulty was most pronounced for small companies.

Section 722 (b) (4)

The fourth subsection of 722 contained the widest provision for relief. A change in the character of the business during the base period commonly

did not increase the income of that period but produced an increase in subsequent war years. The law defined the types of change which were considered eligible for relief. These were:

- (1) Commencement of business during the base period.
- (2) Change in operation or management.
- (3) Change in products or services.
- (4) Change in capacity for production or operation including a commitment therefor.
- (5) Change in ratio of non-borrowed capital to total capital.
- (6) Certain acquisitions of the assets of competitors.

Of the 84 companies which petitioned the Court for relief to June 30, 1955 under this subsection, 36 were successful. In the following tabulation, the breakdown of the Tax Court decisions is based upon the various reasons which were advanced for relief. The total number of applications and the total number of successful applications are higher than the actual number of companies involved, since more than one change was cited by many companies, and some were successful in proving that they were entitled to relief for more than one reason.

Commencement of business was one of the easier claims to prove. All that was required was that the taxpayer demonstrate incorporation during the base period and completion of the initial transactions which established the character of the business.²⁶ Rejected applications were primarily from successor organizations which were new in a legal sense only,²⁷ or from corpora-

²⁴ *Excess Profits Tax Act of 1950*, House Report No. 3142, 81st Cong. 2nd sess., p. 201.

²⁵ T. D. 5908, 1952-1, C. B. 143, 143-148.

²⁶ 7-Up Fort Worth Co. Inc., 8 T. C. 52 (1947); Del Mar Turf Club 16 T. C. 749 (1951).

²⁷ Singer Bros. Inc. 15 T. C. 823 (1950).

tions which reached full development during 1939 and for whom a reconstruction of income did not provide relief.²⁸

Relief was not awarded for a mere change in management. A change in business policy also had to be demonstrated, and this was proved in only one case before the Tax Court.²⁹ A different person in a managerial position did not necessarily increase income, but a change in the methods of conducting the business might well do so.

A change in operation, which included distribution and manufacture, might produce a measurable effect, and eight cases were awarded relief for this reason. Distribution changes, such as a shift from indirect retailing of insurance policies to direct or from intrastate trucking to interstate, the addition of industrial and wholesale sales to retail sales, and the branding of merchandise, were considered important enough to increase sales and income.³⁰ In manufacturing, changes in operations, such as the mechanization of a hand process and a change to new machinery which utilized a new and different process, were primarily cost-saving and eligible for relief.³¹

A difference in product or service secured relief only if the taxpayer was able to prove that the product or service was new for the company. The addition of an ice cream mix to milk

products, brandy to wine products, candy in a theatre, a new type of roller bearing, a new undergarment, rug-making yarn to needlecraft products, and a change from a "distribution" operation to that of a "keypoint" operator were held to be grounds for relief.³² The new product or service which was the basis for relief was actually or potentially the source of a substantial amount of added sales and income.

TABLE 2
ANALYSIS OF TAX COURT DECISIONS UNDER
SECTION 722 (b) (4)

Change in Character	Number of Taxpayers Allegations Before the Tax Court	
	Allegations	Secured Relief
1) Commencement of business	16	9
2) Changes in operation or management	23	8
	6	1
3) Differences in product or service	27	11
	2	2
4) Difference in capacity for production	14	3
operation	15	8
commitment	13	5 #
5) Difference in capital structure	2	2
6) Acquisitions	2	0
Total	120	49

3 production, 2 operation

Of most importance was the provision for a change in capacity for production or operation, especially since this included relief for a commitment for an increase in capacity. The latter provision was just because the very process of enlarging a building is time-consuming. If the law had not granted

²⁸ Industrial Supplies, Inc. 18 T. C. 1067 (1952).

²⁹ Royal Crown Bottling Co. of Knoxville, 22 T. C. 688 (1954).

³⁰ Wisconsin Farmer Co. 14 T. C. 1021 (1950); East Texas Motor Freight Lines, 7 T. C. 579 (1946); Radio Shack Corp., 19 T. C. 756 (1953); Roy Campbell, Wise & Wright, Inc. 15 T. C. 894 (1950).

³¹ Neilsen Lithographing Co. 19 T. C. 605 (1952); Brown Paper Mill Co. 23 T. C. 47 (1954).

³² Lamar Creamery Co. 8 T. C. 928 (1947); Morgan Construction Co. 23 T. C. 242 (1954); Lily Mills Co. 21 T. C. 900 (1954).

some method of drawing the new facilities into the base period, undue hardship would have resulted for some taxpayers. In Tax Court cases, the ability of purveyors of services to qualify for an increase in capacity proved to be greater than of manufacturers of products, despite the easier measurability of physical productive capacity.³³

The most important basis for judging qualifying changes was the amount of the increase in capacity and the probable demand for the added product or service. An increase in capacity designed for a new product or service was more likely to receive relief than one for an old product.³⁴

Of the remaining two types of change, the one involving a change in capital ratios was an equitable solution for corporations which reduced debt and interest payments during the base period.³⁵ A reduction in debt and interest payable during the base period was part of the development of a better economic climate, which included a reduction in interest rates. The acquisition of the assets of a competitor, the second remaining change, was actually a factor in only one case tried before the Court.³⁶ The company did not secure relief because no increase in income was shown. The provision probably aided some organizations, however, at the Bureau level.

³³ National Grinding Wheel Co. 8 T. C. 1278 (1947); Beringer Bros. Inc. 18 T. C. 615 (1952); Southland Industries, Inc., 17 T. C. 1551 (1952); Jefferson Amusement Co. 18 T. C. 44 (1952); Hemenway-Johnson Furniture Co. 19 T. C. 782 (1953).

³⁴ Springfield Tablet Co. 22 T. C. 35 (1954).

³⁵ Jefferson Amusement Co. 18 T. C. 44 (1952); Brown Paper Mill Co. 23 T. C. 47 (1954).

³⁶ Pittsburgh & Weirton Bus Co. 21 T. C. 888 (1954).

In computing constructive income in the presence of change, a new factor was introduced by the law. The taxpayer was given an additional two years, under base period conditions, in which to develop the full effect of the change. If the taxpayer gained a liberal interpretation of this provision, he sometimes secured a substantial rise in base period income. In the case of Del Mar Turf Club, the push-back raised the excess profits tax credit from \$39,766 to \$125,000 (the company had requested \$183,000).³⁷ The allowance of an additional period for the determination of an income credit was in the interests of equity, but at times it appeared to complicate the law more than it aided taxpayers.

In the Excess Profits Tax Act of 1950, no provision was made for (1) a change in operation or management; (2) a change in capacity which was based upon a commitment for production or operation; (3) a change in debt, or (4) acquisitions. These were omitted because they were inapplicable to the period—(3), because proof of the influence of the factor was extremely difficult—(1) and (4), or because other provisions of the 1950 law, such as credit for new capital additions during and after the base period and the use of 1949 and 1950 income under the growth provision, obviated the need for this relief—(2). Nevertheless, the Revenue Act of 1951 added special relief for a commitment for the construction of new facilities in one limited situation and for consolidation in a case involving two newspapers.³⁸

Relief in the 1950 law was provided for new corporations, new products,

³⁷ 16 T. C. 749 (1951), 750, 769.

³⁸ 65 U. S. Stat. at L. (1951) Chap. 521.

and increase in capacity. All three of these factors had been important bases for relief under section 722. The product or service provision of the 1950 law was somewhat different, however, in that it provided no allowance for constructive income in the case of a corporation which dropped an unprofitable product. This type of claim could have been brought under section 722 (b) (4) of the earlier law, although no Tax Court cases which involved this issue were decided favorably for the taxpayer.³⁹

Section 722 (b) (5)

Section 722 (b) (5) was supposed to cover all other factors which might cause base period net income to be an inadequate basis for the excess profits tax credit, subject to the conditions of sections 722 (b) (1) to (4). The Council indicated that relief was to be granted under section 722 (b) (5) if a seasonal variation plus a base period of more or less than 48 months combined to make income abnormally low; relief could also be granted if operating difficulties in starting up a new plant which was ineligible under section 722 (b) (4) because it was not designed to increase income raised costs above the expected level.⁴⁰ In one case before the Tax Court, the taxpayer secured relief after proving that royalty payments were made under a fraudulently secured injunction.⁴¹

In all of the other cases before the Tax Court, the taxpayer's claim was denied. Rejection of most of the cases was based upon the following types of

grounds: (1) inadequacy of the data intended to substantiate the claim;⁴² (2) ineligibility of management inadequacies under section 722 (b);⁴³ (3) prohibition of post-1939 events as qualifying;⁴⁴ (4) ineligibility of usual or customary occurrences such as depression, legislation and its administration, and natural growth;⁴⁵ (5) ineligibility of an inadequacy of income which resulted from a method of accounting.⁴⁶ In many cases, equitable treatment of the taxpayer appear to have justified relief, but the technical provisions of the law barred such adjustment.

The 1950 excess profits tax allowed relief for one type of situation in which no relief was granted by the Tax Court under the World War II law. A lessee of a railroad property who was required to pay the excess profits taxes of the lessor was not granted a deduction for the tax payment; a further consideration was that the lessor had agreed to exclude the payment from income. The situation corrected in this provision was the subject of the Philadelphia, Germantown, and Morristown Company case, under the World War II law. The company had not been granted relief by the Commissioner or the Court previously because post-1939 events were involved.⁴⁷

The lack of success under section 722 (b) (5) in securing relief was largely a result of the need to conform to the requirements of the other subdivisions

³⁹ *Foskett and Bishop Co.* 16 T. C. 456 (1951).

⁴⁰ *Matheson Co.* 16 T. C. 478 (1950).

⁴¹ *Alexandria Amusement Corp.* 16 T. C. 446 (1951).

⁴² *Kemp & Hebert* 18 T. C. 922 (1952).

⁴³ *Clinton Carpet Co.* 14 T. C. 581 (1950).

⁴⁴ 6 T. C. 789 (1946), 789-799.

³⁹ *Pratt and Letchworth*, 21 T. C. 999 (1954).

⁴⁰ *E. P. C. 4*, 1946-2 C. B. 122, 122; *E. P. C. 11*, 1947-1 C. B. 79, 79.

⁴¹ *Glenshaw Glass Co.* 23 T. C. 1004 (1955).

of section 722 (b). The fairly inclusive character of these provisions made it difficult for the taxpayer to prove a section 722 (b) (5) claim which could not have come under one of the other subsections. Ineligibility under (b) (1) to (4) was tantamount to rejection under (b) (5), unless very unusual factors were present, such as the existence of fraud which was regarded as an abnormality by the Court.

Section 722 (c)

Corporations which were restricted to the use of the invested capital credit could apply for relief under section 722 (c), if invested capital did not include the value of intangible assets (relief under (c) (1)); if capital was not an important-income factor (under (c) (2)); if capital was abnormally low (under (c) (3)). The Tax Court granted relief in three cases under (c) (1).⁴⁸ Two companies obtained relief under a combination of (c) (1) with (2), or (3).⁴⁹

Under (c) (1), relief was obtained if the intangible, such as contacts of an officer or the use of a trade-name, was not included in invested capital. For (c) (2), the taxpayer was allowed relief if the return on invested capital was considerably in excess of 8 per cent for its competitors during the base period and later. Abnormally low invested capital under (c) (3) arose in some cases as the result of leasing facilities. The Tax Court also permitted relief for a large debt under (c) (3). There were no cases before the Tax Court involving a foreign corporation in busi-

ness for less than 48 months during the base period.

Rejection of claims before the Tax Court was primarily based upon inability of the taxpaying company to substantiate its capability of existing under base period conditions.⁵⁰ Unless the company could do so, relief was not available, because a constructive average base period income credit was the means of awarding relief.

No similar relief provision was included in the 1950 law, except for the alternative basis granted all new corporations which were incorporated during or after the base period. Since the computation of substitute income was based upon the use of the industry rate of return on capital, which included full credit for added capital invested via equity or debt after the close of the base period, no additional relief was considered necessary. To some extent also, the minimum credit of \$25,000 was a relief provision for such companies, since they were likely to be small. The special limits on total taxes specifically aided new companies.

Reconstruction of income under section 722 (c) was troubled by the same uncertainties as a commitment under section 722 (b) (4). The estimate of income was based upon the transferral of a situation which developed during the war to the base period, with the additional allowance of a two-year push-back. Unless it was possible to develop base period estimates for demand, no relief was available to the taxpayer.

The allowance of relief for an inadequacy of capital in the base period was important in the law because of the low rate of return on invested capital

⁴⁸ *Danco Co.*, 17 T. C. 1493 (1952); *Transit Buses, Inc.*, 20 T. C. 999 (1953); *Crossfield Products Corp.*, 20 T. C. 97 (1953).

⁴⁹ See first and third cases cited in note above.

⁵⁰ *Tin Processing Corp.*, 16 T. C. 713 (1951); *Smith's Heating Inc.*, 24 T. C. No. 61 (1955).

(8 per cent) allowed under the World War II law and the inclusion of debt at only one-half of the amount outstanding. A corporation in an industry with a record of base period earnings on capital well in excess of 8 per cent might otherwise have had a serious tax disadvantage. Relief under (c) was available to the taxpayer with a minimum of difficulty if the facts did not disclose that its existence was primarily attributable to the war.

Constructive Average Base Period Net Income

Reconstruction of income for the base period years was a thorny problem throughout section 722.⁵¹ The taxpayer and the administrator were required to guess the amount of income which the corporation would have had if the depressant effect upon income had not occurred or if the qualifying change had been effective during the entire period.

The objective was the computation of the "normal" income for the company. Normalcy came ultimately to be defined by the results of the pre-1940 years. Post-1939 occurrences and income were rejected by the statute, but otherwise, the computation of constructive income was unrestricted by law. As the statute came to be interpreted, estimates of income were based upon experience of companies in prior years, or of similar corporations when data on the company itself were unavailable. The most important limitation upon the estimate of base period income was the economic environment which prevailed in the 1936-1939 period. The levels of sales, income, and profitability were considerably lower in

the 1936-1939 years than in the post-1939 period. The inability of many corporations to prove the likelihood of successful operations at these lower levels was responsible for the rejection of many claims which otherwise might have been accepted.

The amount of administrative judgment required in developing an estimate of constructive income was unlimited. Although the facts of a company's history were an influence upon the basic analysis, in the end, the appraisal of facts was subject to the personal interpretation of the administrators. Such interpretation was, of course, hedged by a logical desire to forestall any future criticism of overly generous relief allocation.⁵² Consequently, the Bureau required detailed information from the taxpayer; this was used with data from its own files for the involved computations which were required in computing income. The Tax Court, which was the beneficiary of the Bureau's labors and those of the taxpayer, generally estimated income upon the basis of what seemed to be informed judgment without elaborate computations.

Despite the many objections which have been raised to estimates of constructive income under section 722, later experience with the automatic provisions of the 1950-1953 tax appear to have increased the regard of many people for the discretionary type of estimate.

General Comments

If it is assumed that an excess profits tax is needed in a war or near-war pe-

⁵² Senate Report No. 27, *Investigation of the Bureau of Internal Revenue*, 69th Cong., 1st sess., Parts 1, 2, 3, criticized the Bureau's handling of World War I relief.

⁵¹ See cases cited above under various subsections.

riod for any reason—to bring business income within the war-control framework, to secure revenue, to make other controls and the conscription of men more palatable, to siphon off excess funds produced by large governmental expenditures, to restrict excessive profits which are beyond the range of renegotiation—then the purpose of a relief provision, such as section 722, must be to strengthen the excess profits tax in the accomplishment of these tasks. A section 722 relief provision is designed to ease the burden of the tax upon those companies with income which is not inflated solely by the war economy. Since the standard for income is set by the pre-war years, many factors should be removed which had an earlier adverse effect on income. The provisions of section 722 listed qualifying factors of that kind—factors which were responsible for lowering income or for failure to attain full income-development during the base period. A general relief provision reinforces an excess profits tax by alleviating the more capricious effects of the tax; it does not exempt income derived from a war-expanded economy. Consequently, the purposes of the law can only be fulfilled if allowance is made for the low income of companies that experienced a base period abnormality or were in the process of change.

The value of section 722 was disclosed in the relief applications which fulfilled the technical requirements. On the other hand, claims which were considered ineligible highlighted the abuses to which such a section may be subjected. The amount of relief provided under section 722 was not large, \$261 million,⁵³ in relation to the amount

of taxes collected, \$35.1 billion,⁵⁴ or to the amount claimed, \$4.3 billion.

The number of companies which secured relief under section 722 was not larger because of the highly fictionalized nature of the basic reasoning and the poor presentation of substantiating data in many cases. The inadequacy of the data was partly a result of the nebulous character of the reason asserted by the taxpayer for relief, and partly a result of the taxpayer's deficiency in preparing the claim.⁵⁵

The many reasons presented by taxpayers to justify relief were in some measure a resultant of the vague manner in which the provisions of section 722 were originally drafted. The taxpayer attempted to exploit this ambiguity to the fullest extent; it also appears that he was aided in this endeavor by the tax experts.

The fact that a substantial number of the claims had little merit was recognized by the taxpayer and the Council; 10,858 claims (20 per cent of the total applications) were withdrawn before any decision on relief was made by any agency of the Government. Furthermore, there is difficulty in comprehending the reasoning that impelled taxpayers to carry many more poorly based claims as far as the Tax Court. Did they regard the Tax Court as less stringent than the Council, or was the

the cumulative figure is available. *Annual Report of the Commissioner of Internal Revenue for the Fiscal Year Ended June 30, 1953* (Washington, 1954), p. 31.

⁵⁴ *Excess Profits Tax on Corporations, 1950, Hearings, House Committee on Ways and Means, 81st Cong., 2d sess., p. 24. Treasury Department Statement.*

⁵⁵ A. B. C. Brewing Corp. 20 T. C. 515 (1953); Dr. P. Phillips Canning Co., 17 T. C. 1222 (1952); Triangle Raincoat Co. 19 T. C. 548 (1952); Trunz, Inc., 15 T. C. 99 (1950); West Flagler Amusement Co. Inc. 21 T. C. 486 (1954).

⁵³ As of June 30, 1953, the last date for which

Council not forceful enough in discouraging such claims? In some cases there may have been a tendency for the Council to suggest that the taxpayer take the case to the Court in order to secure definitive rulings.⁵⁶

The Council in its judgments on applications for relief was sustained generally by the Tax Court. In many instances where the Court granted relief, it did so by extending the position of the Council through an increase in the constructive income previously allowed. The Council was specifically organized to handle the interpretation of section 722, and its staff of lawyers, accountants, and economists were all required for the job.

The task of the Tax Court was the same as that of the Council, except that the Court was given the data upon which to judge the application and was not required to gather it. The Court, a judicial body, was required by law to be the last resort of the taxpayer upon questions which were basically economic in character. From the opinions, the Court was fully cognizant of the economic environment of the 1936-1939 period. In some decisions, the Court seems to have been more generous than the facts warranted. It awarded relief if convinced that the taxpayer was deserving, even if the figures did not bear this out.⁵⁷ In certain instances, as in the case of price wars or some changes in the character of a business, the interpretation of the Court

was more rigid, because of the technicalities of the law, than an economic analysis would seem to justify. In estimating constructive income, the Court did not base its estimates in many instances upon a detailed computation. It merely used its "judgment on the record."⁵⁸

A rise in base-period income was generally, although not exclusively, dependent upon a properly documented claim.⁵⁹ The Brown Paper Mill Company presented a very well documented claim for a change in operations and a change in capital under (b) (4).⁶⁰ The company secured an increase of \$331,000 on a credit of \$1,400,000, which was a substantial benefit at the 90 per cent and 95 per cent rates of the excess profits tax. A new corporation, Yeast Products, Incorporated, secured a constructive credit of \$36,760 in lieu of an invested capital credit of \$4,896.⁶¹ The case was well supplied with supporting data and secured for the company 75 per cent of its requested \$50,000 of constructive income. Schneider's Modern Bakery secured relief, however, primarily because the Court appears to have regarded the company as deserving. The data that were supplied by the company were not sufficient to provide a basis for a reconstruction of income. The company's credit was raised from

⁵⁸ *Ibid.*, p. 762.

⁵⁶ Matheson Co., 16 T. C. 478 (1951); Lampport Co. Inc., 17 T. C. 1079 (1951); Singer Bros., Inc., 15 T. C. 683 (1950); Stonhard Co., 13 T. C. 790 (1949); Tober-Saifer Shoe Mfg. Co., 17 T. C. 1042 (1951); Wadley Co. 17 T. C. 269 (1951); R. W. Eldridge Co., 19 T. C. 792 (1953); Dr. P. Phillips Canning Co. 17 T. C. 1222 (1952).

⁵⁷ Radio Shack Corp., 19 T. C. 756 (1953).

⁵⁹ Cf. Hugo Brand Tannery Co., Inc. 20 T. C. 990 (1953); East Texas Motor Freight Lines, 7 T. C. 579 (1946); Hemenway-Johnson Furniture Co., 22 T. C. 43 (1954); Lily Mills Co., 21 T. C. 900 (1954); 7-Up Fort Worth Co., 8 T. C. 52 (1947); Southland Industries, 17 T. C. 1551 (1952); Transit Buses, 20 T. C. 999 (1953); Wisconsin Farmer Co., 14 T. C. 1021 (1950).

⁶⁰ 23 T. C. 47 (1954).

⁶¹ 21 T. C. 308 (1953).

\$3,640 to \$7,655.⁶² In actual dollar figures this amount was not large, but relatively, it represented a more than 100 per cent increase. Although the Court used the same reasoning in the case of the National Grinding Wheel Company, the result for the company was not as favorable. The credit was increased only \$2,000. This amount was small when related to average income of \$125,000.⁶³

A surprising fact about a large number of the cases is the small size of the dollar amount of the claims. Many of the claims involved credits of less than \$25,000.⁶⁴ This factor probably was the basis for the inclusion in the 1950 excess profits tax law of the minimum credit of \$25,000.

A corollary and interesting result of the operation of section 722 was educational. The inception of section 722 revealed to the business world the importance of presenting its point of view to congress. The general relief provision was added to the law after the appearance of a large number of witnesses before congressional committees and the forceful presentation of their problems. This experience was utilized in the hearings for the 1950 excess profits tax law with more spectacular results, as the specific relief provisions written into that law attest.

For the future, the experience with section 722 relief provides some guiding principles. The elimination of most small corporations as prospects for re-

lief through some minimum credit, as in the Korean War Tax, is desirable in order to simplify the administrative problem.⁶⁵ However, some administrative judgment, both as to qualification for relief and computation of a substitute credit, is better than rigid adherence to inflexible legal standards. A standard tends to simplify the application of the law, but it also discriminates against those companies which are just below the limit. The use of an industry average for computation of the substitute credit discriminates against the corporation which earns a larger than average return on its capital, the very corporation which the law is supposed to help.

The centralization of responsibility for the direction of a relief program in a separate board is better than leaving the problem to be handled by the usual income tax supervisors. The factors which are involved are different from those in the usual tax and accounting problem; therefore, a different attitude is necessary on the part of the administrator. The concepts are generally economic, and not solely accounting. Centralization of administration enables the individuals to acquire greater familiarity in a shorter time with the law and its ramifications. Publicity on relief is needed in order to prevent undeserved windfalls to favored companies, and in turn to protect administrators.

Relief under an excess profits tax utilizing the average earnings approach is proper for a new company and when the company's base period has been

⁶² 19 T. C. 763 (1953).

⁶³ 8 T. C. 1278 (1947).

⁶⁴ In addition to cases cited above, see *Rand Beverage Co.*, 18 T. C. 275 (1952); *Punch Press Repair Corporation*, 21 T. C. 223 (1953); *Permold Company*, 21 T. C. 759 (1954); *S. N. Wolbach*, 22 T. C. 152 (1954).

⁶⁵ *Schneider's Modern Bakery, Inc.* 19 T. C. 763 (1953), *Radio Shack Corp.* 19 T. C. 756 (1953). Both companies would have been exempted from the tax by a \$25,000 minimum credit.

marked by changes in products, operations, and capacity, by interruptions in production on account of external factors, by depression due to counter-movement of profits or to a sizable lag in the movement of business in a particular industry. In computing the excess profits tax credit under the invested capital option, the inclusion of leased property, debt in full, and some provision for the valuation of intangibles which are important to some businesses could reduce the need for relief for taxpayers using this alternative. Some of the technical provisions, which allow adjustment for the taxes of a lessor paid by a lessee, for accounting changes, for unusual income, for reapportionment of income, and for a carry-back and carry-forward, alleviate to some extent the harshness of the law.

No law, no matter how well written, will satisfy all. The inclusion of a section such as 722 does tend to eliminate some of the more capricious effects of an excess profits tax attributable to factors beyond the taxpayers' control. The greater specificity of that section, compared with that of the World War I law, makes for less difficulty of administration. The allowance for administrative judgment makes for greater equity in some cases than was obtained under the Korean War tax. Section 722 does appear to have accomplished the intention of the writers of the law, within the limitations of the language of the statute. It was psychologically important because it provided for an easing of the tax—whether real or illusory. It made the World War II excess profits tax law constructive taxation.

INTEGRATION OF SALES AND INCOME TAXES AT THE STATE LEVEL

ALEK A. ROZENTAL *

THERE are currently 33 states imposing "general"¹ sales taxes. Total revenue from this source exceeded \$2.6 billion in 1955 and accounted for over 16 per cent of all general revenue receipts of the 48 states. For the 32 states in which the tax was in force in fiscal 1955, sales tax proceeds were nearly 33 per cent of all tax collections and over 23 per cent of total general revenue.²

In spite of its fiscal importance and the growing number of states using it, the general sales tax continues to be a controversial tax measure and one bitterly opposed by numerous groups in several states, including those that have had this tax for some time.

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Much of the research in connection with this article was done while the author was on the staff of the Minnesota Tax Study Committee. The author is indebted to Professor Walter W. Heller of the University of Minnesota for stimulating his interest in state and local finance. Special thanks are due Professor Harvey E. Brazier of Wayne University for his help and guidance.

¹ The general sales tax should be distinguished from selective excises imposed upon one or more kinds of commodities, frequently at varying and specific rates. Seven states include in the tax base sales other than those of tangible personal property at retail. However, no state imposes a tax that is general in the sense that it applies to the sale or purchase of all goods and services.

² *Compendium of State Government Finances in 1955*, U. S. Bureau of the Census (Washington, 1956), pp. 8, 11 and 12.

This paper examines a form of sales tax that may be of special interest to the 19 states that currently tax both sales and individual incomes. Other states may also find some of its features relevant to their tax systems.

The tax examined here may be labeled an "integrated sales-income tax." Its main feature is a broad-based levy on the sale of tangible personal property and services to ultimate consumers, combined with flat personal credits against the individual income tax.³

Problems of Retail Sales Taxation

Among the various types of sales taxes currently imposed by the states, a single-stage, retail sales tax is preferred by most economists on both equity and economic grounds. Its attractions to state taxing authorities include the following:⁴

³ No state is using this type of tax. A number of suggestions embracing the idea of granting personal credits against sales tax liability have been made, mainly in connection with proposals for a federal sales tax. Cf. C. O. Hardy, *Do We Want a Federal Sales Tax* (Washington, 1943); A. G. Hart and E. C. Brown, *Financing Defense* (New York, 1951); and W. A. Morton, "A Progressive Consumption Tax," *National Tax Journal*, June, 1951.

⁴ This section draws upon the following sources: U. S. Treasury, *Considerations Respecting a Federal Retail Sales Tax* (Washington, 1943); Harold M. Groves, *Financing Government* (New York, 1954), pp. 242-262; John F. Due, "Retail Sales Taxation

(See next page)

- 1) A sales tax is capable of raising large amounts of revenue in a way that is relatively convenient both to the government and to the taxpayer.
- 2) It reaches resources otherwise immune from taxation.
- 3) In periods of falling revenues the yield from sales taxes is likely to decline less than that of other major taxes.
- 4) A sales tax is less inimical to the competitive position of a state than other major taxes.
- 5) A sales tax, its shortcomings notwithstanding, is often the best alternative, given the need for additional revenue or the desire to replace another revenue source.

Among the criticisms directed against the general sales tax, those with most substance appear to be the following:

- 1) A sales tax, if broad in scope, is regressive in relation to income and discriminates unfairly against large families.
- 2) A sales tax, if made less regressive by exemptions and exclusions, becomes capricious in its incidence, administratively complex, and more modest in yield.
- 3) Exclusion of services from the tax base is neither equitable nor administratively simple, but their inclusion runs counter to the prevailing practice.
- 4) Taxation of producer goods involves multiple taxation, but their exclusion from the tax base leads to evasion and avoidance.

in Theory and Practice," *National Tax Journal*, March, 1952; "Retail Sales Tax Problems," *Proceedings of the National Tax Association* (Sacramento, 1953) and "The Administration of Sales and Other Excise Taxes," *Proceedings of the National Tax Association* (Sacramento, 1951).

In order to reduce the regressivity of the sales tax, several states exempt such items as food, children's clothing, and medicines. Exemption of machinery, feed, industrial fuel, containers, and similar items is designed to prevent the taxing of a commodity more than once or to retain the consumption-expenditure flavor of the tax base.

When certain items are excluded in order to lessen the regressivity of the tax, numerous problems appear.⁵ If a given amount of revenue is to be raised, the rate has to be increased, which may in turn aggravate some inequities. Exemption of a specific good favors those who have a greater preference for this good and discriminates against those whose preferences run towards taxed

⁵ The following quotation illustrates some of the problems arising in connection with exemptions and exclusions from the tax base:

"Pop. . . . sells papers and magazines, cigarettes and tobacco, candy and peanuts, and he has a small soda fountain. While we are there, mother comes in with little Johnnie and buys two pounds of peanuts. One pound is salted and the other is sugar roasted. They sit down at the fountain where mother has a chocolate sundae and Johnnie has a chocolate ice cream soda. Then they buy a large chocolate bar and two chocolate Good Humors to take home to brother and sister. Finally mother gets out her purse and says, 'Well, Pop, what do I owe you?' Whereupon Pop takes off his apron and moves into his role of tax expert. He is required to know that peanuts, plain and salted are a food, and therefore exempt, but that sugar roasting turns them into a taxable confection. He knows, of course, that ice cream is a food and therefore exempt. But this isn't plain ice cream, so he must know more. He must know that he can put chocolate sauce on the ice cream and not change its exempt character, but the minute he adds soda water, presto! it becomes taxable. The last two items look easy. The chocolate bar certainly is a confection and is taxable. But when he comes to the chocolate-coated Good Humors, which certainly look like confections, he must know that the New York Court of Appeals, reversing the Appellate Division, has held that a Good Humor is not a confection, but a milk and sugar product and therefore exempt from tax." Charles W. Rivoire, "The Retailer Looks at Sales Taxes," *Proceedings of the National Tax Association* (Sacramento, 1948), p. 320.

commodities. Finally, the shift of consumption to tax-exempt commodities may raise their price and thus offset, in part at least, the relief intended.

The exclusion of commodities entering into cost of doing business is also a source of much difficulty. Frequently a conflict arises between the desire to avoid multiple taxation and the unwillingness to open wide loopholes in the tax law. It may be generally agreed, for example, that goods purchased for resale or for incorporation into a manufactured product should not be taxed. At the same time it is often extremely difficult to determine what is and what is not bought for resale. Thus, a turret lathe may be properly exempt, but the case for exemption may be less clear with respect to office carpets, typewriters, or business furniture.

To deal with these problems two administrative principles have been evolved. The first one, the "physical ingredient" rule, is the principle applied by the majority of the retail sales tax states. Under this rule a commodity is not taxable if it becomes a component, physical or chemical, of a good sold at retail. While amenable to simple administrative determination, the physical ingredient rule is neither fair nor rational. Under this rule such items as catalysts, lubricants, and machinery would have to be taxed. In a few states, notably Michigan and Ohio, a more generous principle is applied. Under this "direct use" rule, all purchases that are directly serviceable in connection with production of tangible personal property for sale are exempt.⁶

⁶ For a more precise definition of this rule and also for the loss of revenue incident to its adoption see: Ohio Department of Taxation, *Comparative Analysis of Sales Tax Productivity: Ohio and Other States* (Columbus, 1956).

When services are exempt, many items, never resold, escape taxation. Cosmetics purchased by beauty parlors and barbers, supplies purchased by professional people, housing contractors, and others require special treatment. Administration is complicated by the necessity of distinguishing between that part of the total bill that consists of services and the part that represents a charge for tangible property. Even if services were more generally taxed than they are at present, some would have to be excluded. Perhaps the most important of these would be housing. It would be inequitable to tax renters alone, especially since homeowners enjoy many other tax advantages, but the administrative problem of reaching homeowners is an extremely difficult one.

The Incidence of an Integrated Sales-Income Tax

The Minnesota Tax Study Committee made an attempt to compare the incidence of a "typical" sales tax with one which would fall on a broad base but would allow credits against the state individual income tax.

Two kinds of data were used. Consumer consumption patterns were obtained from the figures provided by the Bureau of Labor Statistics. Data pertaining to income distribution and the state income tax liability were provided by the Minnesota Department of Taxation.

The Bureau of Labor Statistics survey made in 1950 was confined to a sample of urban families. In order to extend the implication of the data for the state as a whole, and for a more recent year, it was necessary to make a number of arbitrary assumptions.

These were:

- 1) The ratio of current consumption expenditures to income, by income groups, was the same in 1953 as in 1950.
- 2) The pattern of consumption (proportion of total consumption spent on various goods and services) was the same in 1953 and in 1950.
- 3) The pattern of consumption for the state as a whole in 1953 did not diverge significantly from that of urban families in 1950.⁷
- 4) Underreporting of income and definitional differences between gross income and personal income are invariant with respect to income groups.⁸

Based on the available data and on these assumptions it was possible to obtain 1953 incomes, consumption, and the number of families per return for the state of Minnesota (Table 1).

Three bases of a hypothetical, two per cent sales tax were then postulated:

Case I —Items subject to tax:

Fuel, light, water and refrigeration

⁷ To test the plausibility of these assumptions, the distribution of retail sales in Minnesota in 1948 was compared with the 1954 distribution. The pattern was remarkably similar for the state as a whole. On the other hand, there were important differences in the consumption patterns of metropolitan urban families when compared with the state as a whole. The existence of these differences casts a shadow over the validity of state-wide conclusions based on the 1950 sample data. There are reasons to believe, however, that these differences are not crucial. They are due to rural purchases in urban areas and to the inclusion of non-taxable items (e.g. farm machinery) in the statistics of retail sales prepared by the Bureau of the Census. In any event, differences in the proportions spent on various items tend to diminish when total purchases subject to tax are aggregated.

⁸ "Gross income" for income tax purposes was, in 1953, 70 per cent of personal income as reported by the Department of Commerce.

Household operation
House furnishing and equipment
Food, other than for home consumption
Personal care
Clothing
Recreation and reading
Automotive and transportation

Case II —Items subject to tax under Case I and in addition:

Food for home consumption
Medical care
Alcoholic beverages
Tobacco products
Education
Gasoline

Case III —Items subject to tax under Case II, but:

A credit of \$5 per person per return is allowed to those filing an income tax return.

The items not subject to tax were housing and the following miscellaneous expenditures: interest on personal loans, funeral expenses, money lost or stolen, allowances to children, and similar transfer expenditures.

The dollar liabilities and the ratios of tax liability to income for all three sets of assumptions are presented in Table 2. The "burden curve" obtained under Case III assumptions is least regressive in relation to income.

As calculated on the basis of the information contained in Table 2, the revenue yield of the Case I tax would have been, in 1953, about \$33 million. That obtainable under Case III would approximate \$43 million. The higher yield of the "integrated" tax is, of course, directly related to the arbitrary

amount of the personal credit allowed. But the more equitable incidence of this tax, compared with its alternative, Case I, appears undisputed and is independent of the rate of tax. Moreover, Case III removes much of the dis-

dollar of credit. A \$7 credit would remove all tax liability, under the tax, from the lowest income group, and it would reduce the proportion of tax liability to income of the next lowest income group to 0.78 per cent. Alter-

TABLE 1
ESTIMATED INCOME AND CONSUMPTION BY INCOME GROUPS OF MINNESOTA
INDIVIDUAL INCOME TAXPAYERS, 1953

Item	Income Groups									
	All Units	Under \$1,000	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$3,999	\$4,000 to \$4,999	\$5,000 to \$5,999	\$6,000 to \$7,499	\$7,500 to \$9,999	\$10,000 and over
Average Gross Income †	\$3,836	\$ 602	\$1,471	\$2,452	\$3,448	\$4,412	\$5,395	\$6,650	\$8,650	\$19,565
Average Consumption Expenditure ‡	\$3,364	\$1,010	\$1,617	\$2,195	\$3,272	\$3,733	\$4,834	\$5,586	\$6,565	\$13,969
Average Number of Persons Per Return *	2.5	1.9	1.8	2.1	2.6	3.0	3.3	3.4	3.3	3.2
Number of Returns	934,571	64,378	151,626	188,341	186,859	150,806	87,734	51,553	26,277	26,997

† Gross Income corresponds to money income before personal taxes.

‡ Consumption Expenditures were calculated by assuming that the ratio of consumption to gross income is the same as it was in 1950 for urban families.

* Number of persons per return differs from the definition of family in the BLS 1950 sample study. Minnesota income tax returns include married persons filing separately when the other spouse has independent income. Accordingly, the number of persons per return is generally below the number of persons per family.

Sources: U. S. Department of Labor Bureau of Labor Statistics, *Survey of Consumer Expenditures in 1950* (Washington, 1955) (preliminary worksheets); State of Minnesota Department of Taxation, *Analysis of Minnesota Income Tax and Adjusted Compensation Tax Returns by Income Groups, by Type of Taxpayer and by Area*, (Fiscal Year, 1954) (preliminary worksheets).

crimination against large families.

The amount of the personal credit could be varied to affect both the productivity of the tax and its incidence. For example, the credit could be increased to \$7 or \$8 at a revenue cost of some \$2.8 million for each additional

natively, instead of increasing its amount, the credit could be limited to those below a certain income level. Thus, if those with incomes over \$10,000 were denied the credit, their tax liability as a proportion of income would become 1.16 per cent of income,

instead of 1.07 per cent. Were it desired to provide for larger families at all income levels, the dollar amount of credit could be reduced for incomes above a certain level. For Minnesota, a reduction of credit for those above \$10,000 would increase collections by about \$100,000 per \$1 of credit reduction.

taxes. The administrative problems due to taxation of business and professional services (with the possible exception of domestic servants and housing) are likely to be less cumbersome than the necessity of drawing thin and uneven lines between taxable and non-taxable items.

TABLE 2
ESTIMATED TAX LIABILITY BY INCOME GROUPS UNDER A TWO PER CENT SALES TAX,
MINNESOTA INDIVIDUAL INCOME TAXPAYERS, 1953

Taxable Base	Income Groups									
	All Units	Under \$1,000	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$3,999	\$4,000 to \$4,999	\$5,000 to \$5,999	\$6,000 to \$7,499	\$7,500 to \$9,999	\$10,000 and over
Case I * Dollar Liability	\$35.42	7.54	13.70	21.30	32.08	39.86	52.34	59.48	73.00	167.88
Percent of Gross Income	0.92	1.25	0.93	0.87	0.93	0.90	0.97	0.89	0.84	0.86
Case II * Dollar Liability	\$58.48	14.60	25.48	35.76	56.84	65.64	85.30	96.18	119.86	226.30
Percent of Gross Income	1.52	2.43	1.73	1.46	1.65	1.49	1.58	1.45	1.39	1.16
Case III * Dollar Liability	\$45.98	5.10	16.48	25.26	43.84	50.64	68.80	79.18	103.36	210.30
Percent of Gross Income	1.20	0.85	1.12	1.03	1.27	1.15	1.28	1.19	1.19	1.07

* For items subject to tax see text, p. 373.

Source: See Table 1.

Other Characteristics of an Integrated Sales-Income Tax

The device of granting personal credits against a broad-based sales tax liability avoids the many equity and administrative problems incident to the manifold exemptions that perforate the bases of the currently operating sales

The adoption of an integrated sales-income tax may be expected to strengthen compliance with the individual income tax and to insure the provision of more complete tax rolls. On the other hand, it would require additional personnel to process the increased volume of refunds. Under the existing procedures, however, this fac-

tor will not be of major significance. The use of punch cards and mechanical handling would permit the additional work to be done at a small cost.

The coordination of the sales tax with income tax could go a long way toward solving the vexing problem of the tax treatment of producer goods.

tax paid on his income. In this way, the necessity of issuing special licenses and certificates to a great number of taxpayers will be removed, and a better check provided with respect to the tax exempt character of the commodity in question. This procedure may be expected to reduce fraud, to simplify

TABLE 3
TAX LIABILITY BY INCOME GROUPS OF ESTIMATED YIELD OF A SALES TAX COLLECTED
THROUGH INDIVIDUAL INCOME TAX, MINNESOTA, 1953*

Yield	Income Groups									
	All Units	Under \$1,000	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 to \$3,999	\$4,000 to \$4,999	\$5,000 to \$5,999	\$6,000 to \$7,499	\$7,500 to \$9,999	\$10,000 and over
Case I Dollar liability	\$35.42	1.18	3.17	8.33	16.35	27.70	44.33	70.18	115.90	486.63
Lia- bility as per cent of income	0.92	0.20	0.22	0.34	0.47	0.63	0.82	1.06	1.34	2.50
Case III Dollar liability	\$45.98	1.54	4.11	10.81	21.23	35.96	57.55	91.11	150.45	634.31
Lia- bility as per cent of income	1.20	0.26	0.28	0.44	0.62	0.82	1.07	1.37	1.74	3.24

* Liability estimated by allocating the total yield of the sales tax, under Case I and Case II assumptions, to income taxpayers in the proportion that each income group bears to the total normal state income tax liability.

Source: See Tables 1 and 2.

This is more likely if the tax authorities were to put the legal incidence of the tax on selling outlets rather than on specified goods and services. In the event that a branch of Sears, Roebuck and Co., for example, sells a commodity that is used in production of consumer goods, the person purchasing the commodity would pay a sales tax but would be allowed to claim credit against the

administration, and to reduce the compliance burden on the sellers of goods and services.

Under an integrated sales-income tax there will arise the question of the tax status of non-residents. Given the difficulties of allocating fractional credits to those who earn and spend their income in more than one state and the desire to tax non-residents,

implicit in sales taxation, the decision may be made to confine the personal credits to residents.

Some Implications of an Integrated Sales-Income Tax

It is perhaps a truism to say that a sales tax of the type discussed here would lose some of its attractive features and gain others which are not quite so attractive, were it actually adopted. All the same, an integrated tax appears superior to the sales taxes currently in use and does not present any really serious drawbacks when compared with its cousins. It may, however, be legitimate to ask whether a sales tax, no matter how improved and streamlined, is really necessary, especially in those states that already have an income tax. After all, the state individual income tax can be adapted to collect an additional revenue equal to the potential yield of a sales tax. This would dispense with the need to set up a costly administrative apparatus and its concomitant waste of resources, staff difficulties, taxpayer irritation, and so on.

Table 3 shows that under Minnesota conditions the state individual income tax could collect the additional revenue that would accrue under a sales tax and do so in a way that would be more consonant with commonly held notions of equity.

There are, on the other hand, a number of reasons why a state may prefer to impose a sales tax rather than to increase the rates or to reduce the exemptions under the individual income tax.

Among the 19 states that use both kinds of levies, the sales tax is more productive of revenue. Only Maryland collects more from its income tax, both on a per capita basis and as a proportion of personal income. This suggests that there are some limits, political or otherwise, to the individual income tax, and that these limits are pushed further away under a sales tax.

One such limit might be the fear of economic competition from states with lower income tax rates. A business, national in scope, may be more affected in its decision to expand locally by increases in income tax rates than if the additional governmental revenue were raised through a sales tax.

Some weight must be given also to the frequently voiced argument that any existing inequities and discriminatory features, bound to occur under any tax, are merely irritable when the rates are low, but that they become intolerable under high rates.

Whether or not any given state should adopt a sales tax or rely on income taxes cannot be decided here. If, however, the decision to enact a sales tax has been made, there is much to recommend an integrated sales-income tax.⁹

⁹ While of primary interest to states with income taxes, the basic concept of personal credits granted against sales tax liability could be adapted to other states, including those that cannot impose graduated rates because of constitutional limitations. Such methods, however, as stamp redemption, coupons, and cash allowances are more cumbersome and administratively more complex than the relatively simple device of personal credits.

BOOK NOTES

Fiscal-Year Reporting for Corporate Income Tax. By W. L. CRUM. Technical Paper 11, National Bureau of Economic Research, Inc., 1956. Pp. 66. \$1.25

Tax analysts and others who have worked with the Treasury's annual *Statistics of Income* have long been aware of a heterogeneous time element in the data for corporations, but until now they have had no way of judging the significance of this element for their work. In this National Bureau Technical Paper Professor W. L. Crum, of the University of California at Berkeley, presents a careful, thorough-going study of the problem, and results which will be helpful to all researchers who use this important source book.

Dr. Crum reports that in recent years fiscal-year dating of corporate income tax returns has been steadily and rapidly extended. In 1928 about 12 per cent of all returns were on a fiscal-year basis; by 1950 the percentage had increased to nearly 34 per cent. "The rise per year was remarkably steady from 1938 to 1945, and exceptionally steep in the years 1946-1948. This evidence strongly suggests that although fiscal-year reporting may have been negligible for most purposes of analyzing *Statistics of Income* data in the early years of the twenty-three year period, it has now become a factor which cannot safely be ignored." (pp. 312-313)

The report goes on to appraise the importance of this development both in terms of the amount of net income or deficit and total assets of firms using a fiscal-year reporting period, and its importance in these terms for different industry and size groups of companies. To cite some results, it was found that firms reporting fiscally accounted for 9 per cent of all corporations' total assets in 1934 and 13 per cent in 1949.

Judging by this measure, fiscal-year reporting was of small importance among public utilities (2 per cent) and financial firms (4 per cent). It was highly important in trade (46 per cent), service (40 per cent), and agriculture (38 per cent). With respect to company size, the increase in this type of reporting involved small firms much more than large ones. If the public utilities and finance industries (both characterized by large publicly regulated companies reporting on a calendar-year basis) are excluded, fiscal year tax returns in 1949 constituted 40 per cent of all corporate returns and represented 29 per cent of the industries' assets.

Thus "for a wide sweep of industries other than public utilities and finance—one can no longer regard fiscal-year returns as a negligible element in analyzing and interpreting corporate tabulations in *Statistics of Income*." (p. 316) In this vein Dr. Crum has also included "limited commentaries" upon some implications of the more important findings. These observations will be useful to the many researchers who use this rich source of corporate data.

Financing Education in the Public Schools, a symposium volume. By TAX INSTITUTE, INC., Princeton, New Jersey, 1956. Pp. 192. \$5.00

In its most recent symposium volume, the Tax Institute has tackled the troublesome, difficult problem of school finance.

The report of the symposium is divided into four major sections. The ever-controversial question of federal aid to education is the subject of Part I. Part II is devoted to a discussion of needs and methods in capital school financing. The foundation school program, a program to establish a minimum standard of educational effort for

the state and have no school district fall below it, is the chief topic of discussion in Part III. In the concluding section school personnel problems are emphasized, including teachers' compensation and work.

This is a timely volume, for it contains excellent pro and con statements on many aspects of a major fiscal problem of states and localities.

Severance Taxation. By OHIO DEPARTMENT OF TAXATION, Division of Research. Columbus, Ohio, 1956. Pp. 33.

This research report presents a survey of the severance taxes currently in effect in 28 states. Following a brief statement of the pro and con arguments for this type of taxation, the report summarizes in convenient form the most important aspects of each state's legislation: the kind of resource taxed; the rate and measure of the tax; the relationship of the tax to local property taxes; the prevalence and form of occupational gross income or sales taxes levied on extractive operations; absolute and relative severance tax yields; and so on. The report also presents estimates of severance tax

yields in Ohio under alternative tax bases and rates for the state's principal resources.

Retail Sales Tax Comparative Tables: Various Provisions of the Thirty-three Sales Tax States and a Comparison of Sales Tax Productivity in Ohio and Three Other Leading Sales Tax States. By OHIO DEPARTMENT OF TAXATION, Division of Research. Columbus, Ohio, 1956. Pp. 50.

The tables presented in this report were first published in 1954. They have been revised, bringing them up-to-date as of April 1, 1956, and they are combined here with some descriptive text which provides an aid in interpreting the statistical and other tabular comparisons.

Thirty-three states now impose some form of general sales taxation, with widely varying provisions for tax rates, tax bases, exemptions, exclusions, and administrative provisions. These provisions are summarized in this report in a form which facilitates quick interstate comparisons.

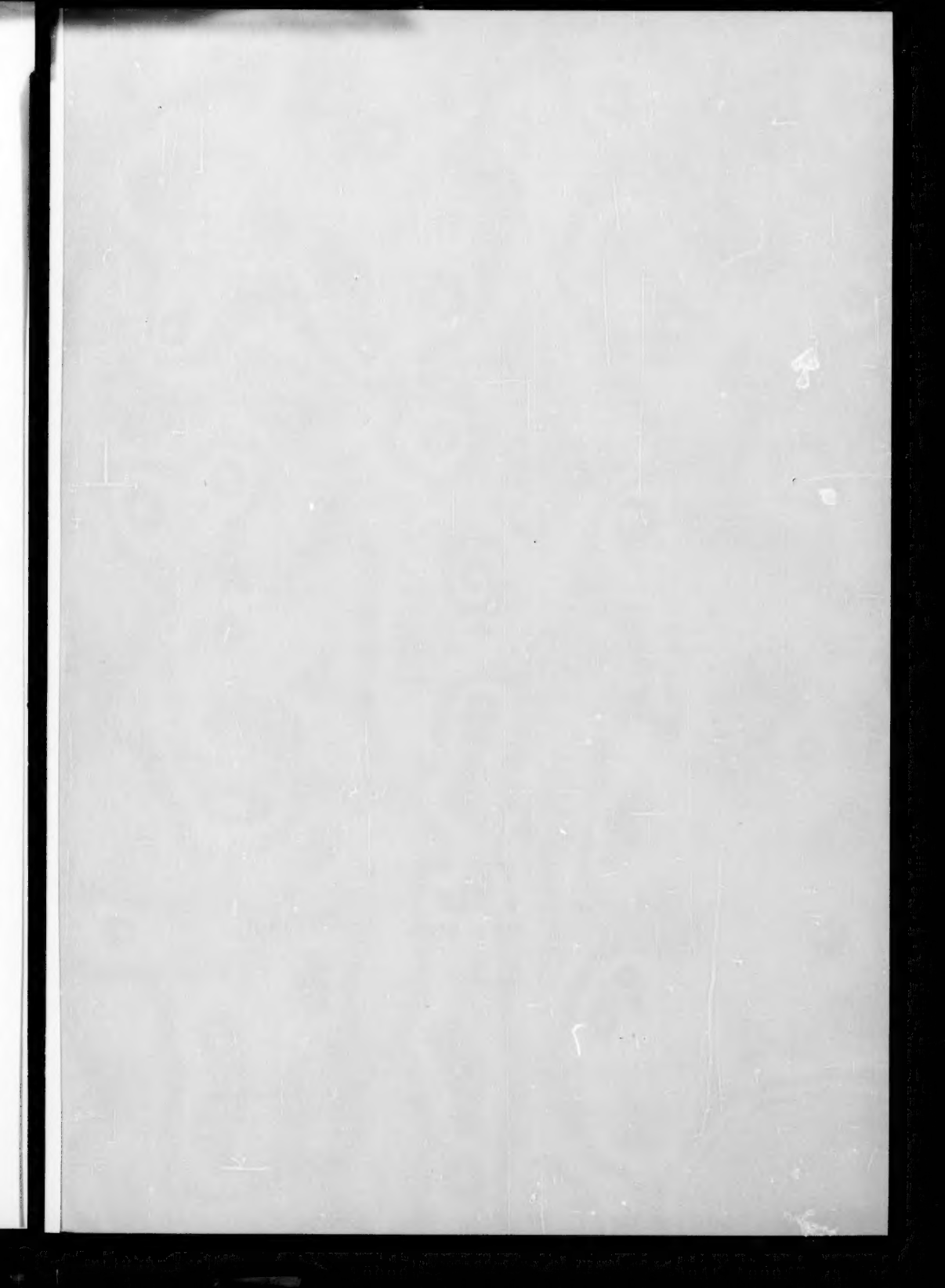
NTA NOTES

Walter J. Kress has been selected by the Executive Committee as the Association's Executive Director. He will begin to take over duties heretofore performed by the Secretary on January 1, but the Secretary will maintain the Sacramento office for several months thereafter while editing the Proceedings of the Forty-Ninth Annual Conference.

Mr. Kress has recently retired from the Pennsylvania state service, where he has been engaged in tax work for 25 of the past 29 years. He was Secretary of the Pennsylvania Board of Finance and Revenue from 1929 to 1937, Deputy Secretary and Acting Secretary of Revenue from 1939 to 1942 and again Deputy Secretary from 1945 to 1947 after service in World War II. In 1947 he began the first of two terms on the Pennsylvania State Tax Equalization Board. He is a member of the Pennsylvania Bar, and has been active in Bar Association work as well as in the American Legion and several tax associations.

The 1957 nominating committee which was selected at the meeting of the Association on November 13 consists of the following: Robert S. Ford, Chairman; H. Clyde Reeves of Kentucky, Carter T. Louthan of New York; John L. Sullivan of Connecticut; and Paul H. Zweifel of California. Suggestions for nominations should be forwarded to Chairman Ford, whose address is 2100 Scottswood, Ann Arbor, Michigan, or to one of the other members of the committee.

RONALD B. WELCH
Secretary



NATIONAL TAX ASSOCIATION

Organized 1907 — Incorporated 1930

OBJECT. The National Tax Association is a non-political, non-secretarian, and non-profit-making educational organization. Its object, as stated in its certificate of incorporation, is to educate and benefit its members and others by promoting the scientific study of taxation and public finance; by encouraging research; by collecting, preserving, and diffusing scientific information; by organizing conferences; by appointing committees for the investigation of special problems; by formulating and announcing, through the deliberately expressed opinion of its conferences, the best informed thought and ripest administrative experience available; and by promoting better understanding of the common interests of national, state, and local governments in the United States and elsewhere, in matters of taxation and public finance and interstate and international comity in taxation.

MEMBERSHIPS. The Association welcomes to its membership, for mutual discussion and deliberation, all who may be interested in taxation and public finance generally. Annual dues are: memberships for students in recognized institutions of higher learning, \$10; memberships for government agencies, schools, and persons receiving more than one-half of their income from employment by such agencies or schools, \$10; memberships for other individuals and unincorporated entities, \$25; corporate memberships, \$100; persons wishing to contribute more liberally to the support of the Association, \$100 to \$1000.

PUBLICATIONS. The NATIONAL TAX JOURNAL is published quarterly in March, June, September, and December. PROCEEDINGS of the annual conferences on taxation which are sponsored by the Association are published soon after the meetings. The JOURNAL and the PROCEEDINGS are sent to members without charge. To non-members the price of the JOURNAL is \$5.00 per year, single numbers, \$1.50. The prices of the PROCEEDINGS vary; that of the 1955 volume is \$10.50.

Applications for membership, orders for publications, and general inquiries should be addressed to Ronald B. Welch, Secretary, National Tax Association, P.O. Box 1799, Sacramento 8, California.

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